



Australian Government

Department of Education, Employment and Workplace Relations

LMTHL2004A Prepare chemicals to a formula

Revision Number: 1

LMTHL2004A Prepare chemicals to a formula

Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge required to perform the range of tasks used in the preparation of chemicals, including making appropriate calculations and measurements.

Application of the Unit

Application of the Unit

This unit applies to handling, preparing, using and storing chemicals. Work may be conducted in restricted spaces or exposed conditions or controlled or open environments.

Chemical processes could relate to the use of chemicals in the following areas:

- chemical preservation
- wool removal and skin pickle (wool off)
- soak, scour, bleach, pickle, sytan (wool on)
- chemical preparation for tanning all hide and skin types
- tannage
- drum processes (bovine, hair off)
- preparation to crust (rewet, dye house processing)
- finishing leather and woolskin (coatings)

Work may be conducted in small to large scale enterprises and may involve individual and team activities. Work is performed within defined procedures under direct supervision.

The application of this unit is according to OHS practices of the enterprise and workplace practices, which may include:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- standard operating procedures
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling

This unit requires the application of skills associated with interpreting and applying work instructions including following and calculating chemical formulas. This unit also requires an ability to plan and organise activities and recognise problems or equipment faults that may interfere with meeting production requirements. Self management skills are used to ensure work complies with workplace requirements.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Confirm instructions, chemicals and equipment required	1.1 Appropriate work instructions are selected and confirmed as the authorised or correct version to be applied 1.2 Chemicals required for the process are confirmed 1.3 Equipment required for the chemical preparation is identified and checked for condition, including all necessary precautions and use of safety gear 1.4 Non-conforming equipment is reported
2 Prepare chemicals and equipment	2.1 Protective clothing and equipment is worn or used in accordance with OHS practices 2.2 Equipment is organised and made ready for use in the preparation of chemicals 2.3 Calculations are accurately performed to determine particular requirements, where necessary 2.4 Chemicals are measured, weighed and prepared in accordance with workplace procedures, taking into account all safety requirements 2.5 Safe lifting and materials handling techniques are correctly applied
3 Clean and store equipment	3.1 Equipment is cleaned, as required, 3.2 Equipment is stored appropriately after use to ensure readiness for next application, where required
4 Store unused chemicals	4.1 Unused chemicals are repackaged in accordance with chemical manufacturers' and relevant safety requirements 4.2 Chemicals are stored in accordance with workplace and recognised safety procedures using appropriate manual handling techniques
5 Carry out recording procedure	5.1 Recording of procedure or chemical use is assessed in accordance with regulatory and workplace requirements

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Demonstrates knowledge of:

- industry and product processes and equipment
- characteristics and hazards of chemicals and other materials used on hides and skins or in the process
- procedures for chemical handling, preparation, and storage
- equipment for weighing and measuring
- quality standards and manual handling procedures
- safety and environmental aspects of relevant processes, particularly for chemicals
- workplace procedures
- OHS practices, including hazard identification and control measures
- recording and reporting practices

Demonstrates skills to:

- select and confirm requirements
- check and prepare equipment, including safety and protective clothing and equipment
- perform calculations and weigh /measure chemicals
- clean and store equipment appropriately
- repackage, handle, and store unused chemicals
- communicate effectively within the workplace
- interpret and apply established procedures
- document, assess, and transfer information
- read, interpret, and follow information on work specifications , standard operating procedures and work instructions, and other reference material
- maintain accurate records
- sequence operations
- meet specifications
- clarify and check task-related information
- carry out work according to OHS practices

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Employability Skills Statement, Elements and Performance Criteria, Range Statement and Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Demonstrates skills and knowledge to:

- ensure correct application of chemicals for task
- perform calculations, as necessary
- measure and weigh and prepare chemicals
- appropriately handle, use and store chemicals

Consistently applies skills and knowledge when:

- organising work
- completing tasks
- identifying improvements
- using workplace practices
- using OHS practices
- recording and reporting accidents and incidents
- assessing operational readiness of equipment used and work processes
- recognising and adapting to cultural differences in the workplace, including modes of behaviour and interactions
- completing work systematically with attention to detail without damage to goods and equipment

Context and specific resources for assessment

Assessment may occur on the job or in an appropriately simulated environment and requires access to work areas, materials and equipment and to information on workplace practices and OHS practices.

Guidance information for assessment

This unit may be assessed independently or in combination with other relevant units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Legislative/regulatory requirements	All work must comply with relevant Federal and State or Territory legislative or regulatory requirements.
Equipment may include	• protective clothing and equipment and apparatus • calculator • Measuring and weighing equipment • cleaning materials
Prepare chemicals may include	• calculation • weighing and measuring • mixing and blending
Chemical measurements may be assessed	• using manual, semi-automatic or automatic weighing machines
OHS practices	OHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and may include: • manual handling techniques • standard operating procedures • personal protective equipment • safe materials handling • taking of rest breaks • ergonomic arrangement of workplaces • following marked walkways • safe storage of equipment • housekeeping • reporting accidents and incidents • other OHS practices relevant to the job and enterprise

Unit Sector(s)

Sector Leather Production