



Australian Government

MSTGN3012 Work safely with chemicals in TCF operations

Release: 1

MSTGN3012 Work safely with chemicals in TCF operations

Modification History

Release 1. Supersedes MSTGN2012 Work safely with chemicals in TCF operations.

Application

This unit of competency describes the skills and knowledge required to handle and work with chemical substances and preparations that are used in sectors of the textile, clothing and footwear (TCF) industry. It includes cleaning chemicals and solvents commonly used in laundry operations and chemicals, dyes and other substances that are used in textile production.

This unit applies to all sectors of the TCF industry. While the unit of competency relates to safe practices for all chemical handling, and use of a range of chemical substances, the application of the unit and the evidence requirements may focus on one or more industry sectors or workplace contexts.

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.

Licensing, legislative or certification requirements to work safely with chemicals may apply in some contexts and users should check with relevant authorities.

Pre-requisite Unit

Nil

Competency Field

Generic

Elements and Performance Criteria

Elements <i>Elements describe the essential outcomes.</i>	Performance Criteria <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to use chemicals in TCF operations	1.1 Determine job and safe work requirements from work information 1.2 Access information on chemicals and substances used in TCF enterprises 1.3 Distinguish types of chemicals and preparations that require safe handling in own workplace 1.4 Identify personal responsibilities in working with chemicals 1.5 Interpret common terminology in safety data sheets (SDS) for

Elements <i>Elements describe the essential outcomes.</i>	Performance Criteria <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	chemicals used in cleaning, textile production or other application 1.6 Identify procedures for using chemicals in a safe and cost-effective manner
2. Identify chemical control measures	2.1 Identify location and storage conditions for substances and associated documentation 2.2 Differentiate between laundry and other chemicals, and identify risks associated with preparing and using chemicals 2.3 Identify risk control measures and special handling procedures for substances 2.4 Implement correct procedures for calculating quantities and measuring chemicals 2.5 Identify hazards associated with the handling and use of substances in the workplace and associated emergency procedures 2.6 Identify procedures that respond to environmental considerations
3. Apply safe handling of chemicals and solvents	3.1 Ventilate work area and eliminate ignition sources 3.2 Measure, handle and store chemicals in accordance with work health and safety practices and workplace procedures 3.3 Safely operate machinery and/or equipment associated with use of chemicals and solvents 3.4 Demonstrate procedures to act on accidents and emergencies for the specific chemical in use 3.5 Monitor and report chemical usage rates 3.6 Use personal protective equipment (PPE) in accordance with workplace procedures and work health and safety guidance material
4. Promote safe handling of chemicals	4.1 Maintain work area and dispose of chemicals in accordance with regulatory requirements, environmental considerations and SDS recommendations 4.2 Communicate with others about handling and storage of chemicals 4.3 Clear spillages in accordance with workplace procedures 4.4 Report work health and safety issues, faults or emergencies to relevant personnel 4.5 Complete required workplace documentation

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Reading skills to interpret chemical labels, warnings, and standard operating procedures (SOPs) and key requirements of industry standards
- Numeracy skills to interpret ratios and accurately measure and mix chemicals, using mL, L.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes MSTGN2012 Work safely with chemicals in TCF operations.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTGN3012 Work safely with chemicals in TCF operations

Modification History

Release 1. Supersedes MSTGN2012 Work safely with chemicals in TCF operations.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- worked safely with 2 different chemicals typically used in own workplace, including:
 - identifying hazards and controlling risks for each chemical
 - locating and interpreting the safety data sheet (SDS) for each chemical
 - applying Australian or industry standards, relevant to job role and chemical used
 - measuring, handling, transferring, storing and disposing of each chemical safely and in accordance with regulatory requirements
- differentiated between toxic agents, corrosives, reactives, and flammables and combustible chemicals.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- key requirements of Australian Standards, industry regulations and codes of practice that govern the control of chemicals, relevant to the workplace (such as *Australian/New Zealand Standard™ AS/NZS 4146:2000 Laundry practice*, applicable to a laundry workplace)
- characteristics of different chemicals and solvents, toxic agents, corrosives, reactives, and flammables and combustibles, relevant to sector and workplace:
 - builder
 - caustic alkali
 - chlorine bleach
 - detergent
 - fabric conditioner
 - hydrocarbon
 - laundry sour
 - liquid silicon
 - oxybleach
 - perchlorethylene
 - starch
 - white spirit

- characteristics of preparations used in textile production:
 - chemicals
 - cleaning agents
 - dyes
 - other liquid or particle additives used in textile production
 - solvents
 - substances used in the preparation of yarns or textile products for production processes
- workplace information, including:
 - SDS for hazardous substances in use
 - signage and labelling of chemicals
 - the meaning of common SDS terms
 - workplace procedures for using chemicals
- personal responsibilities in the control of chemicals in the workplace
- risks and hazards, including:
 - chemical fires
 - exposure to chemicals, other harmful substances, machinery and equipment
 - exposure to perchlorethylene, dyes or other cleaning chemicals via absorption, inhalation or ingestion
 - machine self-dosing failures
 - mixing of chemicals
 - spills and leaks in the workplace
- risk and hazard control measures:
 - chemical spill clean-up procedures
 - communication protocols
 - guards and safety devices
 - housekeeping
 - inspections
 - isolation procedures
 - traffic and pedestrian flow regulation
- appropriate storage conditions for chemicals, including:
 - containers used
 - labelling
 - organisation
 - security
 - temperature
- PPE relevant to job role and chemical used:
 - air-supplied or self-contained helmets
 - goggles or face shields
 - respirators

- safety boots, gloves and appropriate clothes/garments
- risks associated with operating machinery or equipment that use chemicals
- safe disposal of relevant chemicals in accordance with regulatory requirements
- procedures for the safe and cost-effective measuring and mixing of chemicals and other agents
- workplace procedures for reporting emergencies or work health and safety issues, control of chemical spills and fires, hazard identification and control measures
- workplace reporting and documentation requirements.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - a textile clothing or footwear (TCF) production or processing environment set up with access to chemicals and relevant safety information and PPE for safe chemical use.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>