



Australian Government

Department of Education, Employment and Workplace Relations

MSL952002A Handle and transport samples or equipment

Revision Number: 1

MSL952002A Handle and transport samples or equipment

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the ability to pick up and transport samples or test/calibration equipment in a way which ensures the integrity of subsequent test results.
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Application of the Unit

Application of the unit	This unit of competency is applicable to couriers and laboratory and field assistants in all industry sectors. The person transporting the items is not necessarily responsible for sampling or testing. This unit does not cover sample collection or the ability to handle and transport animals as might be defined under prevailing animal care and ethics legislation and practices. Industry representatives have provided case studies to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting. These are found at the end of this unit of competency under the section 'This competency in practice'.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for pickup	1.1. Confirm pickup sequence and any licence/permit requirements with supervisor 1.2. Check that vehicle and communication devices are in working order 1.3. Check that required transport containers and materials are in the vehicle
2. Pick up and transport items	2.1. Confirm the number and nature of items to be picked up on arrival 2.2. Ensure items match paperwork 2.3. Apply enterprise requirements to the transport of samples and/or equipment 2.4. Alert laboratory personnel to any special needs that are identified on documents accompanying the items 2.5. Complete required documentation at pickup point 2.6. Stow items in the specified transport containers and under the required conditions 2.7. Maintain sample integrity at all times 2.8. Deliver items to reception point in accordance with enterprise procedures 2.9. Maintain confidentiality of information
3. Maintain transport equipment	3.1. Maintain vehicle according to enterprise requirements 3.2. Maintain state of transport containers to ensure they are fit for purpose 3.3. Requisition stocks of consumable materials as required 3.4. Replenish stocks of collecting equipment at collection centres as required
4. Maintain a safe work environment	4.1. Use established work practices and personal protective equipment to ensure personal safety and that of others 4.2. Clean up spills, if they occur, using enterprise procedures 4.3. Minimise the generation of waste 4.4. Dispose of all waste in accordance with enterprise procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- planning the picking up of items in conjunction with a supervisor
- preparing a vehicle for the required journey
- using communication devices so contact is possible between the courier, reception centre, and routine pickup locations
- communicating effectively and courteously with individuals, customers, clients and reception staff
- recording details of item exchange in relevant sections of chain of custody forms, as required
- maintaining the integrity of collected samples or equipment during transport
- containing and cleaning up spillage or breakages
- using appropriate techniques and equipment to safely dispose of waste materials
- maintaining confidentiality in all aspects of work
- reporting of problems, accidents or incidents in accordance with enterprise procedures

Required knowledge

Required knowledge includes:

- the relationship between effective communication with clients and customers and enterprise business
- the need for appropriate and timely transport
- control measures for minimising exposure to hazardous materials and equipment
- effect of changes in environmental conditions, vibration and shock on samples
- procedures for the containment and cleanup of spillages and breakages
- efficient waste containment and disposal practices
- maintenance requirements of equipment used in the processes of handling and transporting samples
- relevant health, safety and environment requirements
- enterprise procedures for responding to emergencies
- contact details for key personnel

Specific industry

Additional knowledge requirements may apply for different industry sectors. For example: Biomedical samples:

- labile nature of biological and environmental samples
- possible infectivity of biological materials

REQUIRED SKILLS AND KNOWLEDGE

- possible effects of exposure to radioactive materials

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

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

Assessors should ensure that candidates can:

- follow required policies and procedures to maintain the integrity of collected samples or equipment during transport
- deal with customers effectively and courteously
- work safely
- maintain confidentiality and report problems, accidents and incidents in accordance with procedures.

Context of and specific resources for assessment

This unit of competency is to be assessed in the workplace or simulated workplace environment.

This unit of competency may be assessed with:

- *MSL943002A Participate in laboratory/field workplace safety.*

Resources may include:

- vehicle
- enterprise procedures for the handling and transport of samples or equipment
- communication devices
- sample containers
- containers for transporting samples and test/calibration equipment.

Method of assessment

The following assessment methods are suggested:

- review of the job sheets or journal of completed activities
- direct observation of work as a courier
- the quality of review of results traceable to the transport of samples or equipment by candidate
- oral or written questions to assess knowledge of the handling of unforeseen circumstances
- simulated role plays between a courier and personnel at a reception desk or customer pickup centre.

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	In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly. Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability. Access must be provided to appropriate learning and/or assessment support when required. The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work like environment.
This competency in practice	Industry representatives have provided the case studies below to illustrate the practical application of this unit of competency and show its relevance in a workplace setting. Calibration Calibration laboratories must take special care to ensure that they do not damage test equipment during handling, testing or storage. Information relating to equipment requiring special handling, transport or storage conditions should be provided to those responsible for collecting and transporting the items. A customer-orientated calibration laboratory offers a door to door calibration service to most of its clients. Once a week their driver arrives at a major facility and takes delivery of several precision measuring instruments. As always, the driver signs the acceptance note paying particular attention that all the items are recorded correctly, including listing all accessories and associated handbooks. But this time, two delicate items require unique transit cases to ensure they are stored and transported upright. Because the laboratory received prior notice, these cases were loaded into the van before setting off as well as a copy of the special transport and packaging instructions. The driver secures all the items in accordance with the accompanied written instructions to ensure their safe travel and minimise damage during transit. Upon return, the driver unloads the van and the instruments are acquitted by administration staff,

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inspected for damage and booked into the laboratory. The lab supervisor makes sure that their technicians are aware of the special handling requirements of the two delicate instruments.

Biotechnology

During transit, samples must be handled and maintained under conditions which will ensure that their potency and efficacy are maintained. A courier has been asked to transport vaccine samples from the airport to the enterprise for laboratory evaluation. The supervisor faxes the courier company detailed instructions regarding pickup and handling/storage conditions during transit. In this case, the samples are in insulated containers and the temperature is monitored and recorded continuously. The courier collects the samples, puts them in the coolest part of the vehicle, ensuring that the package will not be subject to any sudden jolts, and transports them to the enterprise. After the samples arrive they are checked by the enterprise and appropriate documentation completed.

Biomedical

At 8 am the courier commences the day shift. The shift supervisor identifies the collection centres to be visited. The courier takes the mobile phone from the charger and checks their pager. In the vehicle, the courier logs in the odometer reading, makes a mental note of the fuel level, checks the cooler boxes and other equipment and carefully drives out. Today, there are pickups from four private hospitals and 12 collecting centres in a 200 sq km zone. As they approach the first hospital, there is a call from base with instructions to collect a tissue biopsy and bring it back immediately. He/she asks the base contact to tell haematology that their 10 am specimen arrival will be 40 minutes late because of this unforeseen diversion. Eventually, they complete the round, having remembered to replenish specimen collecting stock at each centre visited.

Environmental (1)

A technical assistant regularly handles and transports sensitive equipment over rough terrain in a 4WD vehicle. After reaching a field site, they are asked to transport expensive water monitoring equipment across an estuary in a small aluminium boat. The assistant notes that the equipment boxes are open to the weather and will need to be made waterproof. Because the water is choppy, the

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assistant adds extra packing material to cushion the most shock sensitive items. They choose to travel with the equipment rather than entrusting it to the local fisherman. Together, they carefully secure the items on the seats rather than placing them on the floor of the boat which is wet.

Environmental (2)

A waste management authority has sent one of their laboratory technicians to collect six containers that have been found by a member of the public on the verge of an industrial area service road. Given that the materials may be hazardous the technician assembles a full set of safety equipment. They also locate a laptop computer with MSDS information, a list of phone contacts for agencies responsible for handling hazardous materials and suitable containers for storing/transporting potentially hazardous materials. Upon arrival at the site, the technician locates six containers of concentrated sulphuric acid which are clearly labelled. The technician consults the MSDS for information on appropriate handling, storage and transportation procedures and follows them closely.

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. 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) may also be included.

Codes of practice

Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected the latest version will be used.

Standards, codes, procedures and/or enterprise requirements

Standards, codes, procedures and/or enterprise requirements may include:

- Australian and international standards such as:
- AS 1678 Emergency procedure guide -Transport
- AS 1940-2004 Storage and handling of flammable and combustible liquids
- AS 4332-2004 The storage and handling of gases in cylinders
- AS ISO 17025-2005 General requirements for the competence of testing and calibration laboratories
- AS/NZS 2243 Set:2006 Safety in laboratories set
- AS/NZS 4452:1997 The storage and handling of toxic substances
- AS/NZS ISO 14000 Set:2005 Environmental management standards set
- animal welfare legislation and codes of practice
- Australia Post Guides
- Australian Dangerous Goods Code
- Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Codes of Practice
- International Air Transport Association (IATA) Regulations
- material safety data sheets (MSDS)
- occupational health and safety (OHS) national standards and codes of practice

Paperwork and documentation

Paperwork and documentation may include:

RANGE STATEMENT	
	• enterprise protocols regarding customer liaison and communication • vehicle log books • protocols for use of pagers, mobile telephones and two-way radios • precautions for safe handling and handling of specific materials (e.g. toxic, infective, radioactive and dangerous goods) • precautions for the transport of volatile and unstable fluids • incident/accident report forms • spillage and waste containment and disposal protocols and containment materials
Maintenance of the integrity of samples or test/calibration equipment	Maintenance of the integrity of samples or test/calibration equipment could involve: • use of appropriate sample containers (glass, plastic and opaque) • use of appropriate preservatives • wrapping container in foil to exclude light • temperature control, which may involve prevention of direct contact between the sample and coolant • use of appropriate equipment boxes (insulated, shockproof and waterproof) • restraint of containers to prevent movement • checking sample viability during transport while avoiding unnecessary handling
Hazards	Hazards may include: • biohazards, such as micro-organisms and agents associated with soil, air, water, blood and blood products, and human or animal tissue and fluids • chemicals, such as acids and hydrocarbons • sharps and broken glassware • manual handling of heavy sample bags and containers and equipment
Safety practices	Safety practices may include: • use of MSDS • use personal protective equipment, such as gloves, safety glasses, goggles and coveralls

RANGE STATEMENT	
	• use of biohazard containers • safe road/off road driving practices • correct labelling of hazardous materials • handling and storing hazardous material and equipment in accordance with labels, MSDS, manufacturer's instructions, and enterprise procedures and regulations • regular cleaning and/or decontaminating of equipment and vehicle
Occupational health and safety (OHS) and environmental management requirements	OHS and environmental management requirements: • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or federal legislation - these requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health

Unit Sector(s)

Unit sector	Sampling
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		