



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TDTD397C Handle dangerous goods/hazardous substances**

**Release: 1**

## **TDTD397C Handle dangerous goods/hazardous substances**

### **Modification History**

Not applicable.

### **Unit Descriptor**

Field D            Load handling

This unit involves the skills and knowledge required to handle dangerous goods and hazardous substances, including identifying requirements for working with dangerous goods and/or hazardous substances, confirming site incident procedures, selecting handling techniques, and handling and storing dangerous goods and hazardous substances.

Persons achieving competence in this unit will need to fulfil all of the relevant Australian and State/Territory regulations and codes concerned with the handling of dangerous goods and hazardous substances.

Field D            Load handling

This unit involves the skills and knowledge required to handle dangerous goods and hazardous substances, including identifying requirements for working with dangerous goods and/or hazardous substances, confirming site incident procedures, selecting handling techniques, and handling and storing dangerous goods and hazardous substances.

Persons achieving competence in this unit will need to fulfil all of the relevant Australian and State/Territory regulations and codes concerned with the handling of dangerous goods and hazardous substances.

### **Application of the Unit**

Not applicable.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

Not applicable.

## Elements and Performance Criteria Pre-Content

Not applicable.

## Elements and Performance Criteria

### Elements and Performance Criteria

| Element                                                                              | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Identify requirements for working with dangerous goods and/or hazardous substances | <p>1.1 Dangerous goods and/or hazardous substances are identified from information including class labels, manifests and other documentation</p> <p>1.2 Storage requirements for hazardous substances and/or dangerous goods are identified and applied</p> <p>1.3 Legislative requirements for hazardous substances and/or dangerous goods are known and used to plan work activities</p> <p>1.4 Handling procedures for different classes and characteristics of goods are observed</p> <p>1.5 Confirmation is sought from relevant personnel where dangerous goods or hazardous materials do not appear to be appropriately marked</p> |
| 2 Confirm site incident procedures                                                   | <p>2.1 Incident reporting processes are identified</p> <p>2.2 Emergency equipment is located and checked according to workplace procedures and statutory regulations</p> <p>2.3 Emergency procedures are identified and confirmed</p>                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3 Select handling techniques                                                         | <p>3.1 Load handling and shifting procedures are selected in accordance with identified requirements for particular goods</p> <p>3.2 Handling equipment is checked for conformity with workplace requirements and manufacturer's guidelines</p> <p>3.3 Where relevant, suitable signage is checked for compliance with workplace procedures</p>                                                                                                                                                                                                                                                                                           |

## **Required Skills and Knowledge**

Not applicable.

## Evidence Guide

### Critical aspects of evidence to be considered

- a. Assessment must confirm appropriate knowledge and skills to:
  - a.1. identify dangerous goods/hazardous substances (from labels, IMDG markings, HAZCHEM signs and other relevant identification criteria)
  - a.2. safely handle dangerous goods/hazardous substances
  - a.3. assess handling and storage precautions and requirements for dangerous goods/hazardous substances
  - a.4. estimate weight and dimensions of load and any special requirements
  - a.5. select appropriate equipment and work systems including personal protection equipment
  - a.6. identify job and site hazards and plan work to minimise risks
  - a.7. determine (any) required permits
  - a.8. use appropriate communication strategies and equipment
  - a.9. locate, interpret and apply relevant information
  - a.10. maintain workplace records and documentation
  - a.11. apply hierarchy of hazard control

### Interdependent assessment of units

- a. This unit of competency may be assessed in conjunction with other units that are part of a worker's job function

### Required knowledge and skills

- a. Relevant regulations and codes concerning the handling of dangerous goods and hazardous substances
- b. Application of relevant aspects of ADG Code and relevant Australian Standards
- c. Permit and licence requirements
- d. Workplace procedures for handling and storing dangerous goods/hazardous substances
- e. Risks when handling dangerous goods and hazardous substances and related precautions to control the risk
- f. Equipment applications, capacities, configurations, safety hazards and control mechanisms
- g. Housekeeping standards procedures required in the workplace
- h. Ability to modify activities depending on differing workplace contexts, risk situations and environments
- i. Ability to read and comprehend simple statements in English
- j. Ability to identify containers and goods coding, IMDG markings and, where applicable, emergency information panels
- k. Ability to plan own work including predicting consequences and identifying improvements

### Resource implications

- a. Access is required to opportunities to:
  - a.1. participate in a range of exercises, case studies and other simulated practical and knowledge assessments that demonstrate the skills and knowledge to safely handle dangerous goods and hazardous substances, and/or
  - a.2. safely handle dangerous goods and hazardous substances in an appropriate range of operational situations

### Consistency in performance

- a. Applies underpinning knowledge and skills when:
  - a.1. assessing handling and storage precautions and requirements for dangerous goods/hazardous substances
  - a.2. estimating weight and dimensions of load and any special requirements

- a.3. selecting appropriate equipment and work systems including personal protection equipment
- a.4. identifying job and site hazards and planning work to minimise risks
- a.5. determining required permits
- a.6. using appropriate communication strategies and equipment
- a.7. locating, interpreting and applying relevant information
- a.8. maintaining workplace records and documentation
- a.9. identifying and safely handling equipment and goods
- a.10. applying hierarchy of risk control
- b. Shows evidence of application of relevant workplace procedures including:
  - b.1. Dangerous Goods Code and other relevant regulations
  - b.2. hazard prevention policies and procedures
  - b.3. workplace procedures and work instructions concerning the manual shifting of loads
  - b.4. issue resolution procedures
  - b.5. job procedures and work instructions
  - b.6. guidelines relating to the safe use of machinery and equipment
  - b.7. quality assurance procedures (where existing)
  - b.8. security procedures
  - b.9. housekeeping processes
  - b.10. environmental protection procedures
- c. Action is taken promptly to report accidents and/or incidents in accordance with regulatory requirements and workplace procedures
- d. Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- e. Work is completed systematically in accordance with safe operating procedures to minimise the risk of injury to self or others or damage to goods, equipment or products

**Context for assessment**

- a. Assessment of this unit must be undertaken by a Registered Training Organisation:
  - a.1. As a minimum, assessment of knowledge must be conducted through appropriate oral and/or written questioning
  - a.2. Appropriate practical assessment must occur:
    - a.2.1. at the Registered Training Organisation, and/or
    - a.2.2. in an appropriate work situation

**Critical aspects of evidence to be considered**

- a. Assessment must confirm appropriate knowledge and skills to:
  - a.1. identify dangerous goods/hazardous substances (from labels, IMDG markings, HAZCHEM signs and other relevant identification criteria)
  - a.2. safely handle dangerous goods/hazardous substances
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  - a.6. identify job and site hazards and plan work to minimise risks
  - a.7. determine (any) required permits
  - a.8. use appropriate communication strategies and equipment
  - a.9. locate, interpret and apply relevant information
  - a.10. maintain workplace records and documentation
  - a.11. apply hierarchy of hazard control

**Interdependent assessment of units**

a. This unit of competency may be assessed in conjunction with other units that are part of a worker's job function

**Required knowledge and skills**

- a. Relevant regulations and codes concerning the handling of dangerous goods and hazardous substances
- b. Application of relevant aspects of ADG Code and relevant Australian Standards
- c. Permit and licence requirements
- d. Workplace procedures for handling and storing dangerous goods/hazardous substances
- e. Risks when handling dangerous goods and hazardous substances and related precautions to control the risk
- f. Equipment applications, capacities, configurations, safety hazards and control mechanisms
- g. Housekeeping standards procedures required in the workplace
- h. Ability to modify activities depending on differing workplace contexts, risk situations and environments
- i. Ability to read and comprehend simple statements in English
- j. Ability to identify containers and goods coding, IMDG markings and, where applicable, emergency information panels
- k. Ability to plan own work including predicting consequences and identifying improvements

**Resource implications**

- a. Access is required to opportunities to:
  - a.1. participate in a range of exercises, case studies and other simulated practical and knowledge assessments that demonstrate the skills and knowledge to safely handle dangerous goods and hazardous substances, and/or
  - a.2. safely handle dangerous goods and hazardous substances in an appropriate range of operational situations

**Consistency in performance**

- a. Applies underpinning knowledge and skills when:
  - a.1. assessing handling and storage precautions and requirements for dangerous goods/hazardous substances
  - a.2. estimating weight and dimensions of load and any special requirements
  - a.3. selecting appropriate equipment and work systems including personal protection equipment
  - a.4. identifying job and site hazards and planning work to minimise risks
  - a.5. determining required permits
  - a.6. using appropriate communication strategies and equipment
  - a.7. locating, interpreting and applying relevant information
  - a.8. maintaining workplace records and documentation
  - a.9. identifying and safely handling equipment and goods
  - a.10. applying hierarchy of risk control
- b. Shows evidence of application of relevant workplace procedures including:
  - b.1. Dangerous Goods Code and other relevant regulations
  - b.2. hazard prevention policies and procedures
  - b.3. workplace procedures and work instructions concerning the manual shifting of loads
  - b.4. issue resolution procedures
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  - b.6. guidelines relating to the safe use of machinery and equipment
  - b.7. quality assurance procedures (where existing)

- b.8. security procedures
- b.9. housekeeping processes
- b.10 environmental protection procedures
- c. Action is taken promptly to report accidents and/or incidents in accordance with regulatory requirements and workplace procedures
- d. Performance is demonstrated consistently over a period of time and in a suitable range of contexts
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    - a.2.1.at the Registered Training Organisation, and/or
    - a.2.2.in an appropriate work situation

## Range Statement

### General context

- a. This unit covers anyone working in the transport, warehousing, distribution and storage industries who may handle dangerous goods and/or hazardous substances
- b. Work must be carried out in compliance with the relevant OHS regulations concerning the safe handling of dangerous goods and hazardous substances
- c. Work is performed under general supervision
- d. Work involves the application of the codes of practice and established procedures for the safe handling of dangerous goods and hazardous substances

### Worksite environment

- a. The dangerous goods may be handled in a range of work environments by day or night and may be:
  - a.1. for short-term storage
  - a.2. for long-term storage
  - a.3. in transit
- b. Customers may be internal or external
- c. Workplace environment may include:
  - c.1. movement of equipment
  - c.2. movement of goods
  - c.3. materials and vehicular traffic
- d. Requirements for work may include:
  - d.1. site restrictions and procedures
  - d.2. use of safety and personal protection equipment
  - d.3. communications equipment
  - d.4. specialised lifting and/or handling equipment
  - d.5. incident breakdown procedures
  - d.6. authorities and permits
  - d.7. hours of operations
  - d.8. noise restrictions
  - d.9. additional gear and equipment
  - d.10. segmentation procedures
  - d.11. emergency procedures, including response to spillage/leaks, evacuation and fire-fighting
- e. Hazards may include:
  - e.1. hazardous or dangerous materials
  - e.2. contamination of, or from, materials being handled
  - e.3. noise, light, energy sources
  - e.4. stationary and moving machinery, parts or components
  - e.5. service lines
  - e.6. spills, leakages, ruptures
  - e.7. fire or ignition
  - e.8. dust/vapours
- f. Hazard management is consistent with the principle of hierarchy of control with elimination, substitution, isolation and engineering control measures being selected before safe working practices and personal protective equipment
- g. Consultative processes may involve:
  - g.1. other employees and supervisors
  - g.2. suppliers, potential customers and existing clients

- g.3. representatives of regulatory authorities with jurisdiction over OHS, dangerous goods and hazardous substances
- g.4. management and union representatives
- g.5. industrial relations and OHS specialists
- g.6. other maintenance, professional or technical staff
- h. Personnel in the work area may include:
  - h.1. workplace personnel
  - h.2. site visitors
  - h.3. contractors
  - h.4. official representatives
- i. Identification of goods may be from material safety data sheets, packaging labels, manifests, stock lists, and HAZCHEM interpretative advice
- j. Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:
  - j.1. company procedures
  - j.2. enterprise procedures
  - j.3. organisational procedures
  - j.4. established procedures
- k. Personal protection equipment may include:
  - k.1. gloves
  - k.2. safety headwear and footwear
  - k.3. safety glasses
  - k.4. mask and respirator
  - k.5. protective clothing
  - k.6. breathing apparatus

**Sources of information/documents**

- a. Information/documents may include:
  - a.1. goods identification numbers and codes
  - a.2. manifests, stock lists, packaging labels, bar codes, stock lists
  - a.3. goods and container identification
  - a.4. workplace procedures and policies concerning the handling of dangerous goods and hazardous substances
  - a.5. supplier and/or client instructions
  - a.6. material safety data sheets
  - a.7. Australian Dangerous Goods Code
  - a.8. HAZCHEM interpretative advice
  - a.9. relevant legislation, codes, regulations and related documentation concerning the handling of dangerous goods and hazardous substances
  - a.10. award, enterprise bargaining agreement, other industrial arrangements
  - a.11. standards and certification requirements
  - a.12. quality assurance procedures
  - a.13. emergency procedures pertaining to dangerous goods and hazardous substances

**Applicable regulations and legislation**

- a. Applicable regulations and legislation may include:
  - a.1. relevant Australian and State/Territory regulations relating to the handling of dangerous goods and hazardous substances
  - a.2. Australian and international regulations and codes of practice for the handling and transport of dangerous goods and hazardous substances, including:

- a.2.1. Australian and International Dangerous Goods Codes
- a.2.2. Australian Marine Orders and the International Maritime Dangerous Goods Code
- a.2.3. IATA's 'Dangerous Goods by Air' regulations
- a.2.4. Australian and International Explosives Codes
- a.3. relevant Australian Standards such as: AS 1216, AS 1596, AS 1894, AS 1940, AS 2030.1-4, AS 2508.2.001-013, AS 2508.3.001-014
- a.4. relevant State/Territory OHS legislation
- a.5. relevant State/Territory environmental protection legislation

**General context**

- a. This unit covers anyone working in the transport, warehousing, distribution and storage industries who may handle dangerous goods and/or hazardous substances
- b. Work must be carried out in compliance with the relevant OHS regulations concerning the safe handling of dangerous goods and hazardous substances
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**Worksite environment**

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  - a.4. relevant State/Territory OHS legislation
  - a.5. relevant State/Territory environmental protection legislation

**Unit Sector(s)**

Not applicable.