



**The Chartered
Institute of Logistics
and Transport**

**Examination Syllabus for the
Dangerous Goods Safety Adviser
Examination in Ireland**

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Introduction

Legislation governing the carriage of dangerous goods by road requires companies involved in consignment, filling, packing, loading, carriage and unloading of dangerous goods to appoint one or more certified dangerous goods safety advisers (DGSA). The role of the DGSA is to help prevent the risks inherent in such activities with regard to persons, property and the environment. For candidates to become qualified and obtain a DGSA certificate they must undergo training and pass an examination. The Chartered Institute of Logistics and Transport Ireland (CILT) has been appointed under Regulation 10(3) of the European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations 2011, as amended, to administer the examination function.

To maintain certification candidates must re-sit the examination on a 5 yearly cycle.

This document details the subjects which may be covered by the DGSA examination.

You can obtain information on DGSA training and enrolling for the examination from the CILT Website on the following link <https://www.cilt.ie/Education-Exams/Exams/DGSA>

Contact Us:

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Format of Examination

The DGSA examination is based on ADR¹ and national legislation² and is intended to ascertain whether candidates possess the necessary level of knowledge to carry out the duties incumbent upon a safety adviser (ADR 1.8.3.3). Until such time as there may be an examination offered in line with ADR 1.8.3.13 (limiting an examination to a specific class(es)/UN numbers), the examination is an “all classes” examination, meaning the successful candidate may act as a DGSA without restriction to any specific hazard class(es) under ADR.

As an open book written examination, permissible materials that may be brought into the examination are limited to a clean hard copy of the national regulations and a hard copy of the current ADR. No electronic devices are permitted.

Candidates will be given an examination booklet for each part of the two paper examination which will consist of a series of questions and space provided for answers. The completed examination booklets are handed in at the end of the examination. The removal of examination questions from the examination venue is prohibited.

The first examination paper will consist of open questions based on both ADR and national regulations, while the second paper will require candidates to attempt two case studies. The case studies paper will require the candidate to attempt a mandatory case study and then choose one further case study from those provided. Case studies may be based on national or international operations or both and may require candidates to answer questions on scenarios based on the carriage of packaged dangerous goods and in tanks including bulk, vacuum operated waste tanks or mobile explosive manufacturing units.

¹ European Agreement Concerning the International Carriage of Dangerous Goods by Road

² European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations S.I.349 of 2011 as amended

Examination Papers

Paper 1:

- series of mandatory short questions (ADR/national legislation),
- 50 marks (65% pass mark),
- 105 minutes duration.

Paper 2:

- two case studies (ADR/national legislation),
- 70 marks (65% pass mark),
- 120 minutes duration.

Should a candidate fail one part of the examination, they may re-sit the failed paper within 12 months of the original examination date to be awarded the DGSA certificate.

Examinations are provided three times per year in several locations throughout Ireland. Further information on locations and dates can be found on the CILT web site.

Examinable subjects are set out in this document in line with ADR; note the following subjects in particular will form a significant proportion of each examination:

- general preventive and safety measures,
- classification of dangerous goods,
- general packing provisions,
- general provisions for tanks,
- danger marking, labelling and placarding,
- information contained in the transport document,
- handling and stowage,
- vehicle crew and vocational training,
- vehicle documents and transport certificates,
- instructions in writing,
- requirements concerning transport equipment.

Candidates must have a general understanding of the requirements of ADR and as our national regulations consist of specific national provisions and exemptions, the examination may also set questions on these regulations, in particular:

- Part 2 General Duties
- Part 5 Offences and Penalties, Regulation 28 Fixed Payment Notice
- Part 8 National Transport Exemptions

DGSA Training

It is a requirement that candidates undergo training prior to sitting the examination. Training may be carried out by individuals through self-learning or by attending a formal training course. The main aim of training is to provide candidates with sufficient knowledge of the risks inherent in dangerous goods transport, of the applicable regulations and administrative provisions and of the duties of a DGSA.

This syllabus in conjunction with the ADR and national legislation should form the basis of any training. This may be supplemented with referenced material specified by the Health and Safety Authority (HSA).

As and when additional material is prepared it will be published on the HSA [web site](#).

Candidates may also find a list of DGSA training providers on the CILT [web site](#).

Note:

Training providers and their training materials are not approved by the HSA or CILT.

DGSA Examination Syllabus

1. Dangerous goods safety adviser role and duties (ADR Part 1 and national regulations)

Candidates must understand the:

- international and national legal framework governing the transport of dangerous goods by road including transitional measures and the intermodal relationship with sea, air, rail and inland waterways,
- legal provisions concerning the appointment of a DGSA to an undertaking,
- duties of the DGSA in monitoring compliance with ADR and national regulations including the provision of advice to help ensure compliance,
- system of DGSA examination, qualification, re-validation and recognition of the certificate across all ADR contracting parties,
- requirement to prepare an annual report and the keeping of such reports for 5 years.

2. Classification of dangerous goods (ADR Part 2 and Part 3)

Candidates must understand the:

- principles for the classification of dangerous goods (substances, articles, preparations, solutions, mixtures and hazardous waste),
- principles of the international framework on UN numbering of dangerous goods and proper shipping names,
- classification criteria and procedures for class specific dangerous goods and assignment of packing groups,
- nature of dangerous goods (physical, chemical and toxicological properties),
- rules in determining primary and secondary hazards,
- test methods used for the classification of dangerous goods,
- structure of the dangerous goods list (ADR 3.2) and be able to use information contained in the list to establish appropriate provisions for specific entries.

3. Packaging, tank and vehicle provisions (ADR Part 4, Part 6 and Part 9)

Candidates must:

- be aware of the principles for the construction, testing and coding of packaging, pressure receptacles, intermediate bulk containers (IBCs), large packaging's and bulk containers,
- understand the requirements for and differences between excepted and limited quantity packaging and fully regulated packaging,
- be aware of the principles of design, type approval, construction, use, inspection and testing of tanks (fixed tanks / tank vehicles, tank-containers, portable tanks, swap body tanks and demountable tanks), multi-element gas containers (MEGCs), vacuum waste tanks and other containment systems referenced in ADR,
- understand the provisions concerning the use of packaging's, IBCs, large packaging's and their packing instructions,
- understand the provisions concerning articles containing dangerous goods,
- be able to identify and distinguish between appropriate containment systems for dangerous goods and identify relevant special provisions,
- understand the provisions for the construction and approval of vehicles and distinguish between the different types of vehicles.

4. Marking, labelling and placarding (ADR Part 5)

Candidates must:

- understand the general provisions concerning consignment procedures specified in ADR Part 5,
- understand provisions concerning marking, labelling and placarding appropriate for packaging, containers, transport units and tanks,
- be able to assess specific circumstances and provide advice on the appropriate marks, labels, placards and overpacking provisions as appropriate.

5. General provisions and participant safety obligations (ADR Part 1)

Candidates must understand the:

- provisions concerning general safety measures (ADR 1.4.1), such as when to notify emergency services and provide information concerning the load, rules concerning no smoking, the carrying of passengers, earthing where specified, load segregation and segregation from foodstuffs,
- restrictions applicable to road transport concerning tunnel classification and dangerous goods tunnel restriction codes,
- obligations placed upon the various participants and how a contract for carriage may be used to assign duties and responsibilities,
- requirements for proper cleaning and decontamination procedures as may be required during the transport of dangerous goods,
- requirement for written procedures covering the principal and specific operations associated with the transport of dangerous goods.

6. ADR and competent authority authorisations, limited and excepted quantities (ADR Part 1, Part 3 and National Regulations)

Candidates must:

- be aware of exemptions, approvals and agreements applicable nationally and internationally, as provided by ADR and national competent authorities in relation to domestic transport,
- be able to provide advice on appropriate exemptions, limited quantities and excepted quantities as may be appropriate to specific circumstances to minimise the impact of relevant legislation.

7. Handling and stowage (ADR Part 7)

Candidates must understand the:

- general principles concerning loading, unloading, handling, load security and filling,
- need for verification procedures such as pre-loading checks, inspection of driver training certificates, transport documentation and general compliance prior to loading,
- key safety provisions and be able to advise accordingly on filling ratios, load security guidelines, mixed loading prohibitions, segregation requirements, loading limitations and provisions applicable to certain classes of dangerous goods.

8. Transport equipment, vehicle documents and instructions in writing (ADR Part 5 and Part 8)

Candidates must understand:

- the general requirements concerning transport units and equipment to be carried,
- the requirements for personal protective equipment (PPE) to be provided for the driver and crew including class specific requirements concerning equipment and PPE,
- the provisions for transport documents, transport unit approval certificates, training certificates, competent authority authorisations, instructions in writing and when it is necessary to generate a container / vehicle packing certificate and when it is not required,
- how to assess specific circumstances and apply the relevant provisions and complete transport documents, including when mandatory language provisions are required.

9. Vehicle crew and training (ADR Part 1 and Part 8)

Candidates must understand the:

- operational duties of the vehicle crew,
- requirements for training appropriate to the role and responsibility of individuals involved in the carriage of dangerous goods,
- specific training requirements concerning drivers and crew, including specialised training for drivers,
- requirement to review and update training and the maintenance of training records.

10. Security provisions and vehicle supervision (ADR Part 1)

Candidates must understand the:

- provisions concerning security to prevent the theft or misuse of dangerous goods that may endanger persons, property or the environment,
- additional measures required for high consequence dangerous goods,
- provisions for the supervision of vehicles carrying certain dangerous goods.

11. Vehicle construction and approval (ADR Part 9)

Candidates must understand the:

- requirements for the approval of vehicles,
- requirements for different vehicles depending on design and purpose of the vehicle.

12. The causes and consequences of accidents involving dangerous goods

Candidates must have an understanding of the:

- types of consequences which may be caused by an accident involving dangerous goods, for example:
 - injury to persons, including fatal or debilitating injury or harm to a person's immediate or long term health,
 - damage to property including vehicles, buildings, transport infrastructure,
 - damage to the environment from environmentally hazardous substances affecting land, air or waterways.
- main causes of accidents, for example:
 - containment failure, such as a stress fracture / corrosion failure in tanks, valve / seal failure in IBCs, poor maintenance of transport equipment,
 - road traffic incidents, such as driver error, vehicle collisions, vehicle roll-over, other road users, loss of load,
 - human error, such as improper choice and or use of packaging, failure to secure loads,
 - exposure to harmful chemicals or articles, such as physical contact, inhalation, injection or irradiation.
- measures required to minimise the likelihood of an accident, such as appropriate training, correct choice and use of containment systems, use of PPE, safety audits, maintenance and inspection of transport equipment,
- requirement to investigate and report on accidents involving dangerous goods,
- need for emergency procedures and be able to apply appropriate provisions of ADR and national regulations.