



## ADR Dangerous Goods Driver Training Qualifications Common Characteristics

### What are the ADR Dangerous Goods Driver Training Qualifications?

These are the standards of training, assessment and certification for drivers of vehicles containing dangerous goods, based on the training requirements drawn up by the UK legislation and International agreements. They have been developed to make sure that they comply with the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (as amended) which apply the provisions of ADR European Agreement concerning the International Carriage of Dangerous Goods by Road Council Directive (as amended).

They are necessary because UK law makes these requirements part of the dangerous goods industry responsibility – a regulatory requirement – to help keep the transportation of dangerous goods safe.

The key areas are

- ◆ The drivers knowledge and skills necessary in their core operational duties
- ◆ The practical application of specific health and safety techniques
- ◆ The preventative and safety measures appropriate to the various types of hazards in Classes 2, 3, 4, 5, 6, 8, 9
- ◆ The specialist knowledge and skills necessary for drivers of vehicles carrying dangerous goods in packages and/or bulk

- ◆ The specialist knowledge and skills necessary for drivers of vehicles carrying dangerous goods in fixed tanks or demountable tanks with a capacity exceeding 1m<sup>3</sup>, drivers of battery-vehicles with a total capacity exceeding 1m<sup>3</sup> and drivers of vehicles carrying dangerous goods in tank containers, portable tanks or MEGCs with an individual capacity exceeding 3m<sup>3</sup> on a transport unit
- ◆ The specialist knowledge and skills necessary for drivers of vehicles carrying substances or articles of Class 1
- ◆ The specialist knowledge and skills necessary for drivers of vehicles carrying radioactive material of Class 7

Employers will look for the relevant qualifications when they are appointing new staff for the transportation of dangerous goods. They also expect their existing staff to have these qualifications.

Understanding and applying these skills in these key areas are important because they help you work effectively in your present job and also prepare you for jobs within the sector which you may do in future. Developing your knowledge of the dangerous goods legislation helps you deal with today's rapidly changing world and improve your career prospects. That's also why employers value them.

# The Carriage of Dangerous Goods and the Use of Transportable Pressure Equipment Regulations ADR Dangerous Goods Driver Training Common Characteristics Route

## What is this Unit about?

This specification is based on the training requirements drawn up by the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (as amended) which apply the provisions of ADR European Agreement concerning the International Carriage of Dangerous Goods by Road Council Directive (as amended). Training shall be given in the form of a specific course approved by Department for Transport and shall act as the basis of training for all categories of driver. This unit's objectives are:

1. To make drivers aware of the specific hazards arising in the carriage of dangerous goods in classes 2, 3, 4, 5, 6, 8 & 9;
2. To give them basic information indispensable for minimising the likelihood of an incident taking place;
3. To enable them to take measures which may prove necessary for their own safety and that of the public and the environment should an incident take place;
4. For limiting the effects of an incident;

This course does not cover any aspect of the packages and/or bulk, tanks Specialisation course, the Specialisation course for carriage of substances and articles of Class 1 or Specialisation course for carriage of radioactive material of Class 7.

## What should I know or be able to do before I start?

It is anticipated that those undertaking this unit will have some relevant knowledge gathered by either working in the freight logistics industry or through prior study.

## What will I know or be able to do when I achieve this Unit?

On successful completion of a class specific unit, you should have sufficient knowledge to enable you to take measures that may prove necessary for your own safety and for that of the public and environment for limiting the effects of an incident. This qualification will provide sufficient evidence to satisfy the training requirements of the relevant statutory provisions.

## What might this involve?

Compulsory attendance on an approved training course will be required.

Common Characteristics of the 7 classes	2 x 45 minute teaching units
Class 2	1.5 x 45 minute teaching units
Class 3	1.5 x 45 minute teaching units
Class 4	0.5 x 45 minute teaching units
Class 5	0.5 x 45 minute teaching units
Class 6	0.5 x 45 minute teaching units
Class 8	0.5 x 45 minute teaching units
Class 9	0.5 x 45 minute teaching units

## Course Structure

If you are an initial or refresher candidate you must start with the core unit followed by a mode\* (packages and/or bulk unit and/or tanker unit) followed by at least one class (this can be either individual class papers or the common characteristics route).

\* Candidates who only require Class 1 and/or Class 7 are not required to sit a mode paper, however if they wish to add any of the other classes to their existing entitlement they are required to sit either or both of the mode papers

You can sit this unit as an add on to your existing ADR Driver Training Certificate.

All examinations must be sat at the end of your training course

## How will this Unit be delivered?

This unit will be delivered in accordance with the prescribed standards in a classroom environment with class participation, together with the use of illustrative examples and visual aids.

## How will I show that I have achieved this Unit?

By passing the appropriate examination(s) which consist of multiple-choice questions.

You must achieve a minimum pass mark of 70%. Any failed examination must be retaken and successfully completed with any examination passes being held for a maximum of 12 months from original notification of result.

You will be issued a certificate by the Competent Authority, which is valid for a period of five years from the date of issue. Please note that if you are adding on other options to your existing certificate your expiry date will not change.

## What can I do next?

Progression routes may include further study towards carriage of dangerous goods in packages and/or bulk, carriage of dangerous goods in tanks, Class 1 and 7, further industry sector specific on the job training and practical experience.

## What will I have to do?

Undertake refresher training within the year before the date of expiry of any certificate issued if you wish to continue certification.

## Further Guidance

This unit is supported by the Department for Transport and HSENI Manual of Practice.

## Guidance for instructors

The assessment criteria are detailed in Appendices A, B, C, D, E, F, G & H

Appendix A – Common Characteristics of the 7 Classes

Preventative and safety measures appropriate to the various common characteristics of the 7 Classes

Appendix B – Class 2

Preventative and safety measures appropriate to the various types of hazards in Classes 2

Appendix C – Class 3

Preventative and safety measures appropriate to the various types of hazards in Classes 3

Appendix D – Class 4

Preventative and safety measures appropriate to the various types of hazards in Classes 4

Appendix E – Class 5

Preventative and safety measures appropriate to the various types of hazards in Classes 5

Appendix F – Class 6

Preventative and safety measures appropriate to the various types of hazards in Classes 6

Appendix G – Class 8

Preventative and safety measures appropriate to the various types of hazards in Classes 8

Appendix H – Class 9

Preventative and safety measures appropriate to the various types of hazards in Classes 9

## ADMINISTRATIVE INFORMATION

### Credit Value

To be advised



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## Training and Assessment Specification

These appendices provide detailed information on the requirements for the training and assessment.

### Appendix A – Common Characteristics of the 7 Classes

<b>Subject</b>	<b>Areas to be Covered</b>
<p>4.The characteristics held in common by substances in Classes 2, 3, 4, 5, 6, 8 and 9</p>	<p>4.1.1 Sources of information about individual substances, their dangers, and the precautions to be exercised when transporting them</p> <p>4.1.2 Need for containment, and the prevention of escape, through correct packaging and careful handling</p> <p>4.1.3 Need for substances to be segregated from each other, and from other loads</p> <p>4.1.4 Dangerous substances may have subsidiary hazards in addition to their primary hazard, and that these may include toxicity, flammability, explosion, corrosivity, oxidation and asphyxiation</p> <p>4.1.5 Effects of the escape of dangerous substances, and the action to be taken in the event of an escape</p> <p>4.1.6 Significance of the miscibility or immiscibility, specific gravity, flammability, volatility and asphyxiant qualities of dangerous substances, and how to relate these properties to the work place</p> <p>4.1.7 Need to avoid overheating substances or causing them to ignite, including the avoidance of sources of ignition</p> <p>4.1.8 Appropriate use of personal protective equipment and antidotes, and the correct methods of decontamination</p>
<p><b>Examination Questions: 20</b></p>	

## Appendix B – Class 2

Subject	Areas to be Covered
4.Preventative and safety measures appropriate to the various types of hazards – Class 2	4.2.1 Characteristics of the three divisions 4.2.2 Danger labels, marking and placards 4.2.3 Why gases need to be compressed, liquefied, dissolved under pressure, refrigerated or a combination of these 4.2.4 Special Packaging 4.2.5 Dangers and precautions to be exercised when transporting gases and actions to be taken in the event of an escape 4.2.6 Other possible dangers including toxicity, flammability, explosiveness, corrosivity, oxidation, asphyxiation 4.2.7 The effects of low temperature on living tissue and other materials 4.2.8 Correct handling of cylinders and avoid overheating 4.2.9 Segregation 4.2.10 BLEVE (Boiling Liquid Expanding Vapour Explosion) 4.2.11 Flammability limits and liquid to vapour volume ratios 4.2.12 Appropriate Personal Protective Equipment to include respiratory protective devices for toxic gases
<b>Examination Questions: 10</b>	

### Appendix C – Class 3

Subject	Areas to be Covered
4.Preventative and safety measures appropriate to the various types of hazards – Class 3	4.3.1 Characteristics of Class 3 substances 4.3.2 Danger labels, marking and placards 4.3.3 Dangers and precautions to be exercised when transporting flammable liquids 4.3.4 Volatility 4.3.5 Vapours above the liquid burn 4.3.6 Vapours are usually colourless and heavier than air increasing the risk of, Asphyxiation and/or Fire 4.3.7 Other possible dangers including toxicity, corrosivity and asphyxiation 4.3.8 Segregation 4.3.9 Flashpoint, auto-ignition temperature, flammability limits (explosives limit) and liquid to vapour volume ratios 4.3.10 Combination of vapour, air and ignition source can create fire hazard 4.3.11 Miscibility and Immiscibility 4.3.12 The need for containment, prevention of escape, or exposure to situations giving rise to dangers, and the action to be taken in the event of such circumstances arising 4.3.13 Types of ignition sources, in particular sparks, naked flames, hot surfaces, electrical equipment, smoking and static electricity 4.3.14 Appropriate Personal Protective Equipment to include respiratory protective devices for toxic vapours
<b>Examination Questions: 10</b>	

### Appendix D – Class 4

Subject	Areas to be Covered
4.Preventative and safety measures appropriate to the various types of hazards – Class 4	4.4.1 Characteristics of the three divisions 4.4.2 Danger labels, marking and placards 4.4.3 Dangers and precautions to be exercised when transporting Class 4 substances 4.4.4 Other possible dangers including toxicity, explosiveness and corrosivity 4.4.5 Drivers duties in relationship to temperature control for certain 4.1 products 4.4.6 Avoiding overheating and sources of ignition 4.4.7 Segregation 4.4.8 Containment and actions on exposure 4.4.9 Appropriate Personal Protective Equipment
<b>Examination Questions: 8</b>	

## Appendix E – Class 5

Subject	Areas to be Covered
4. Preventative and safety measures appropriate to the various types of hazards – Class 5	4.5.1 Characteristics of the two divisions 4.5.2 Danger labels, marking and placards 4.5.3 Dangers and precautions to be exercised when transporting Class 5 substances 4.5.4 Other possible dangers including flammability, explosiveness, toxicity and corrosivity 4.5.5 Effects of oxidation on combustion even in the absence of air 4.5.6 Organic Peroxides contain combustible elements (carbon) and oxygen and the effects of this 4.5.7 Drivers duties in relationship to temperature control for certain 5.2 products 4.5.8 Avoid overheating and sources of ignition 4.5.9 Segregation 4.5.10 Containment and actions on exposure 4.5.11 Appropriate personal protective equipment and the specific dangers of Class 5.2 and eye damage
<b>Examination Questions: 8</b>	

## Appendix F – Class 6

Subject	Areas to be Covered
4. Preventative and safety measures appropriate to the various types of hazards – Class 6	4.6.1 Characteristics of the two divisions 4.6.2 Danger labels, marking and placards 4.6.3 Dangers and precautions to be exercised when transporting Class 6 substances 4.6.4 Other possible dangers including flammability, and corrosivity 4.6.5 Entry into the body may be through inhalation, ingestion or absorption 4.6.6 The effects can be either acute or chronic and the difference of these 4.6.7 Category A & B substances for Class 6.2 4.6.8 Waste from human or animal health care and/or related research 4.6.9 Segregation and in particular from foodstuffs 4.6.10 Special Packaging 4.6.11 Containment and actions on exposure 4.6.12 Appropriate personal protective equipment to include respiratory protective devices 4.6.13 Avoiding contamination when putting on and removing personal protective equipment 4.6.14 The need for rapid decontamination and/or the use of an antidote in the event of exposure
<b>Examination Questions: 8</b>	

## Appendix G – Class 8

Subject	Areas to be Covered
4. Preventative and safety measures appropriate to the various types of hazards – Class 8	4.7.1 Characteristics of Class 8 substances 4.7.2 Danger labels, marking and placards 4.7.3 Dangers and precautions to be exercised when packing, handling and transporting Class 8 substances 4.7.4 Other possible hazards including toxicity, flammability, and oxidising 4.7.5 Strong chemical reaction with a wide range of materials 4.7.6 Contains mostly acids and alkalis although chemically opposites have very similar corrosive effects 4.7.7 Effects on many materials including human tissue may be delayed and the rate of reaction may depend on concentration and temperature 4.7.8 May react violently with heat, water and neutralising agents 4.7.9 Segregation 4.7.10 Containment, actions on exposure and the importance of neutralisation and/or decontamination 4.7.11 Appropriate personal protective equipment to include respiratory protective devices
<b>Examination Questions: 8</b>	

## Appendix H – Class 9

Subject	Areas to be Covered
4. Preventative and safety measures appropriate to the various types of hazards – Class 9	4.8.1 Characteristics of Class 9 substances 4.8.2 Danger labels, marking and placards 4.8.3 Principle examples of substances and articles 4.8.4 Environmentally hazardous substances 4.8.5 Segregation 4.8.6 Containment and actions on exposure 4.8.7 Appropriate personal protective equipment
<b>Examination Questions: 8</b>	