

## **Carriage of Cylinders**

### **Frequently Asked Questions**

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**Q. What does ADR regulation stand for?**

A. The European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR).

**Q. I am just a small company (sole trader) do I have to comply with the ADR regulations**

A. Yes everyone carrying gas cylinders in the course of their work in a vehicle must follow basic safety requirements .

**Q. I have heard that there are different requirements for ADR defined “large loads”. As a service engineer am I ever likely to be caught by these a “large load”?**

A. Typically someone falling into the large load criteria (ie 1000 transport units, TUs) is likely to be a bulk delivery driver. most service engineers will be covered by small load requirements.

**Q. What are the small load requirements?**

A. *Note: this will apply to most RAC engineers*  
Drivers should be trained in the hazards and dangers of the goods eg Safe handling of gas cylinders and Emergency procedures and use of fire fighting equipment

**Q. How do I determine the number of transport unit per cylinder?**

- For compressed gases (e.g. Oxygen Nitrogen) use the cylinder water capacity in litres.
- For liquefied gases (e.g. refrigerants) use the net mass of gas in kg
- For dissolved gases (e.g. acetylene) use the net mass of gas in kg

**Q. How do I calculate my mixed load transport units?**

1. For flammable gases F - Transport units per cylinder x number of cylinders x 3
2. For asphyxiant/oxidant gases (e.g. compressed gases refrigerant gases) A - Transport units per cylinder x number of cylinders x 1
3. These two totals added together will determine the total transport units.
4. If the total is below 1000 units the small load requirements apply

**Q. Do vehicles need ventilation? Do I have to have a van or can I use a normal passenger car or estate to carry cylinders?**

A. Vehicles used for the transportation of gas cylinders should be open. If the vehicle is closed in it must be well ventilated (top and bottom). Toxic gases (e.g. ammonia) must not be carried in a closed vehicle unless specifically designed for the purpose. Cylinders must be restrained to avoid load movement. You should carry out a risk assessment to see if your vehicle is suitable . Many companies are now moving to the exclusive use of vans with a sealed bulkhead for this reason.

**Q. What Safety Equipment do I need to carry on my vehicle?**

A. Two 2kg fire extinguishers are required on all vehicles carrying gas cylinders. (Dry powder recommended). Normally one is sited in the rear of the vehicle and the other in the drivers compartment.

**Q. What else should I know about carrying cylinders safely in my van?**

A. Cylinder valves must be closed whilst in transit and all equipment such as gauges regulators and adaptors should be removed. Cylinders should be secured and should not project beyond the sides and end of vehicle. acetylene cylinders should be stored upright. Cylinder labels must never be removed or defaced

**Q. Do I have to have Hazard Diamonds on my car?**

A. Marking of vehicles (Hazard Diamonds) is not strictly required when under the ADR threshold but extremely useful to the emergency services in an accident, especially if the driver is unconscious. You might want to remove these when not carrying cylinders in which case magnetic signs are advisable.

**Q. What other Information about the load should I carry with me? And what paperwork do I have to carry legally?**

A. It is mandatory to carry the material safety data sheets or a TREM card (transport emergency card available from the gas supplier) for any gas that is in your vehicle. These should be visible to the emergency services in case the driver is unable to tell them about the load.

**Q. Are there any other chemicals that I am carrying that are likely to be covered by these regulations?**

A. Most of these are likely to be carried in small quantity and will not take you over the low transport unit limit. However you must ensure that you have carried out a RA, are carrying the relevant COSHH datasheets and that they have been safely restrained.

**Q. Where can I find out more about this regulation and requirements?**

- Refer to SES Datasheet I9 (2007) ADR Carriage of Dangerous Goods
- Contact your HSE adviser within your company.

The Health and Safety Executive have a section on their website which includes a Carriage of Dangerous Goods Manual

<http://www.hse.gov.uk/cdg/in>

The information contained in this Guide should be seen as a guide to interpretation of relevant industry standards, legislation and statutory information which should be consulted by the relevant competent person responsible for servicing refrigeration equipment. The Service Engineers' Section and the Institute of Refrigeration accept no liability for any errors or omissions.

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