



# **SAFETY TRAINING LEAFLET 11 LOADING AND TRANSPORTING CYLINDERS**

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Note: this Safety Training Leaflet is taken from Leaflet 10: LOADING AND TRANSPORTING CYLINDERS in Doc 23/08 Safety Training of Employees. The leaflet has been put into a new format and revised.

## 1 Introduction

### 1.1 Safety leaflets

Safety training leaflets summarise the basic operational safety knowledge which needs to be known by employees working in the gas industry.

Refer to EIGA Doc 23 *Safety Training of Employees* for the various combinations of leaflets which define the scope of safety training for a variety of specific jobs.

Each leaflet addresses a specific topic as identified in the title.

### 1.2 Comprehension tests

There is a comprehension test for each leaflet, included in **Appendix 1**.

Each test comprises several questions. To pass the test it is suggested that the employee should score 75% at the first attempt. Incorrect answers should be discussed to confirm understanding.

**Appendix 2** includes the list of correct answers.

## 2 Loading and Transporting Cylinders

### 2.1 Hazards of gas cylinders

- Gases stored in cylinders can be dangerous in the event of a leak.
- Make sure that you know the properties of the products you handle, e.g. whether they are toxic, flammable, oxidising, asphyxiating, etc. Make yourself familiar with the relevant Safety Data Sheets provided by the gases company.
- Know the colour coding (cylinder shoulder) and any other method (e.g. danger labels, hazard and precautionary statements) of identifying the gas properties.
- Learn how to identify the different types of valves and how to detect defects of valves and cylinders.
- When rolling cylinders do not handle the cylinders using the valve hand wheel as this could open the valve. Only handle cylinders with caps, guards or other valve protecting devices.
- Never smoke when handling any gas cylinders.
- Do not expose cylinders to shocks, for example by throwing them onto or off vehicles or platforms.
- Do not allow oil, grease or other chemicals to come into contact with cylinders or valves. Isolate contaminated cylinders and report to the gases company.

### 2.2 Handling cylinders

Improper handling of cylinders can injure your hands, back or feet.

- Wear the correct protective clothing: GLOVES AND SAFETY SHOES ARE ALWAYS REQUIRED, other means of protection like safety glasses and hard hats may be required too.
- When handling cylinders take into consideration its characteristics, e.g. weight, size, shape.
- Always handle cylinders as you have been instructed.
- If a cylinder must be lifted (into an upright position), use the proper technique. Do not attempt to carry large or heavy cylinders alone.
- When handling cylinders, avoid trapping your fingers between the cylinder and other objects.

- IF A CYLINDER STARTS TO FALL, DO NOT TRY TO CATCH IT - STAY CLEAR.
- Check that the cap or guard is firmly fixed before handling the cylinder.
- Never lift a cylinder by the cap, valve or guard, unless it has been specifically designed for the purpose.
- Where tools have been provided for moving cylinders, such as pallets, trolleys or hoists, use them in preference to manual handling.
- Check that the floors (of vehicles, of customer sites, etc.) are in good condition and are free from oil, grease and loose objects. Report to your supervisor any which are in an unacceptable condition.
- Use extra care in wet or icy conditions when the surfaces can be slippery.

### **2.3 Securing cylinders**

A cylinder which is not secured properly can be readily knocked over by an impact or sudden movement.

- Follow the approved loading and unloading procedures.
- Check that all the fastening devices, such as straps, chains and railings are in good condition and are being used correctly.
- Ensure that all cylinders are properly secured in pallets or on vehicles before the vehicle or pallet is moved.
- Be aware that small cylinders may require specific containments and/or securing methods.

### **2.4 Pallets safe operating and maintenance rules**

- Pallets must be inspected prior to loading or unloading cylinders.
- Defective pallets must be taken out of operation.
- Pay particular attention to cylinder stability before loosening the straps if applicable.
- The ground on which cylinders or pallets are stored must be horizontal, even, clean and solid.

**Appendix 1 – Loading and Transporting Cylinders – Test Questions**

*Tick the correct answer (s) or write in the blank spaces as requested.*

1. Make sure that you know the properties of the products you handle. Be familiar with the relevant:  
S \_\_\_\_\_ D \_\_\_\_\_ S \_\_\_\_\_
2. When handling cylinders you must never.....:  
A. Smoke  
B. Roll cylinders with the valve hand wheel  
C. Throw cylinders off the platforms  
D. Allow oil or grease, to come into contact with cylinders
3. If a cylinder falls, try to grasp it before it hits the floor.  
A. True  
B. False
4. Complete this sentence:  
"Check that the cap or guard of the cylinder is firmly \_\_\_\_\_ before handling the cylinder"
5. Tick the correct statements:  
A. When handling cylinders, avoid trapping your fingers between them  
B. If a cylinder starts to fall, do not try to catch it  
C. Some product properties can be identified by the colour of the cylinder shoulder  
D. No special instructions are needed for handling cylinders
6. Pallets must be \_\_\_\_\_ prior to loading or unloading cylinders. Pallets which are showing defects must be \_\_\_\_\_ from use
7. All cylinders are properly secured in pallets or on vehicles before the vehicle or pallet is moved.  
A. True  
B. False

**Appendix 2 – Loading and Transporting Cylinders – Test Answers**

1. **Safety Data Sheet**
2. A, B, C and D
3. B
4. **Fixed**
5. A and B
6. **Inspected and Taken out**
7. A