



POSITION PAPER

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Transfilling of Industrial, Medical and Food Grade Gas Cylinders

The safe filling of gas cylinders requires that the persons performing the operation have detailed and expert knowledge of, in particular; gas properties, cylinder design, plant operation and relevant legislation. This is in addition to use of the appropriate equipment and inspection of the cylinder to be filled. Experience has shown that transfilling of gases, usually from a larger cylinder to a smaller cylinder, by unqualified persons have caused serious incidents including a number of fatalities.

EIGA's position is that only competent and trained professionals transfill industrial, medical and food grade gases using cylinders and equipment specifically designed for the cylinder transfilling operation.

Transfilling of medical gases is only allowed if a specific manufacturing licence has been issued by the competent health authority.

The intention of this Position Paper is to clarify EIGA's position on cylinder transfilling and to explain the reasons for this and the main hazards with an uncontrolled transfilling operation.

1. Legal situation

In all EU Member States there is comprehensive safety and health legislation to protect workers, consumers and the public. Major parts of the legislation are based on directives and regulations issued by the European Union. Some of the most important directives that could be relevant to transfill activities, are detailed in the following sections:

- *ADR, the European Agreement concerning the International Carriage of Dangerous Goods by Road* covers national and international road transport in EU. The ADR states that the filling of gas receptacles shall only be carried out by specially equipped centres with qualified staff using appropriate procedures. These include;
 - o conformity to regulations of receptacles and accessories;
 - o their compatibility with the carried gas;
 - o the absence of damage which might affect safety;
 - o compliance with appropriate fill specifications (pressure or level); and
 - o compliance with markings and identification regulations.
- The risks to safety and health shall be assessed and controlled for all work;
 - o Directive 89/391 EEC *on the introduction of measures to encourage improvements in the safety and health of workers at work*,
 - o Directive 89/654 EEC *concerning the minimum safety and health requirements for the workplace*,

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- o Directive 2009/104/EC of the European Parliament and of the Council of 16 September 2009 concerning the minimum safety and health requirements for the use of work equipment by workers at work (second individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) The risks from handling of chemical substances shall be assessed and properly controlled;
- o Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work,
- The risks when handling cylinders shall be assessed and controlled;
- o Directive 90/269 EEC on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers.
- The risks caused by the potential for an explosive atmosphere when handling flammable gases and liquids shall be assessed and controlled;
- o Directive 1999/92/EC on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres.
- Personal protective equipment shall be offered and used as required;
- o Directive 89/656 EEC on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace.
- Emergency procedures shall be established.
- The pressure system shall be designed, installed, constructed and maintained as required for safe use;
- o Directive 2014/68/EU of the European Parliament and of the Council of 15 May 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of pressure equipment (PED).
- Provide appropriate means for the disposal of waste gases;
- o Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control).
- Cylinders which have been filled shall be labelled to comply with transport of dangerous goods regulations and regulations for chemical substances. The label shall include essential safety and health information and bear the name of the organisation that has filled the cylinder. Safety data sheets describing the properties and risks with the delivered gas shall be made available.
- o Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- Gases delivered to private persons shall have comprehensive information;
- o Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety.
- The gas cylinders shall be designed, manufactured and maintained as required by the directives, European or international standards and any national requirements.
- The gas cylinders shall be approved as required by;
- o Directive 2010/35/EC on Transportable Pressure Equipment (TPED); and

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