



Dangerous Goods Safety Bulletin No. 0114

Subject: Flammable refrigerants in non-refillable gas cylinders

Date: 6 January 2014

Background

Non-refillable gas cylinders that are fitted with burst discs, such as those shown in Figure 1, may not be used for flammable and toxic gases if they are more than 1.25 L water capacity. This is a requirement of:

- *International Maritime Dangerous Goods Code* (IMDG Code) covering the transport of dangerous goods by sea

and

- section 4.1.6.1.9 of the *Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition* (ADG7).

Some refrigerant vendors have imported flammable refrigerants in these cylinders, and a number have been sold to vehicle-servicing workshops and refrigeration mechanics across Australia. It is illegal for vendors to transport or supply flammable refrigerants in these cylinders.



Figure 1 Examples of non-refillable gas cylinders fitted with burst disc.

Hazard

If the cylinder over-pressurises and the burst disc opens, the disc will not reseal. This results in the total loss of flammable gas from the cylinder, creating a very hazardous and extensive flammable gas atmosphere.

Recommendations

Flammable refrigerants need to be packed in compliant gas cylinders that are fitted with spring-loaded pressure relief valves, such as cylinders used for LP gas.

Note: Compliant gas cylinders are those satisfying the requirements of Australian Standard AS 2030 for gas cylinders, or its equivalent.

Companies or people who have purchased flammable gas refrigerants in non-refillable gas cylinders have two options:

- use up the refrigerant in the cylinder and dispose of it appropriately

or

- contact the supplier of the refrigerant to arrange transfer of the gas into compliant cylinders and appropriate disposal of the empty cylinder.

Note: Flammable refrigerants in non-refillable cylinders may not be consigned for transport as they do not comply with dangerous goods transport requirements.

Further information

- Australian Dangerous Goods Code 7th Edition, available from www.ntc.gov.au
- Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Regulations 2007, available from www.slp.wa.gov.au
- Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007, available from www.slp.wa.gov.au



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