



Position Statement

Restrictions on Use of Non Metallic Materials in High Pressure Breathing Gas Systems

Foreword

This position statement represents the view of the members of **anziga** for the topic addressed. This position statement is endorsed by the Advisory Council of **anziga** and approved by the Board of Directors of **anziga**, meaning that members endorse and promote its contents in Australia and New Zealand.

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History of document

Description & Comment	Date Issued	Document	Version No.
First issue	8 September 2005	143-005	A0
Correction to match IGC 73/00 regarding oxygen at 30 bar and 25%			A1

Approval (name, title, signature, date)

Air Liquide Australia Limited:

Air Liquide New Zealand Limited:

BOC Limited – Australia:

BOC Limited – New Zealand:

Linde Gas Pty Ltd:



1. Introduction

As a leading industry association, **anziga** promotes the highest standards of safety, quality and reliability.

Many medical breathing systems contain halogenated polymers in valves, regulators and hoses as they generally offer greater resistance to ignition than non-halogenated polymers. However, such materials are not suitable for use in medical breathing systems because of the nature of their constituents.

This position is based on a publication by the European Industrial Gas Association (IGC 73/00/E) titled "High Pressure Breathing Gas Systems Toxicity Risks of Using Non Metallic Materials" which is freely available on the EIGA website www.eiga.org.

2. Position

This position statement includes the requirements and the principles of a risk reduction program to be undertaken by suppliers of medical gases.

Requirements (refer to IGC 73/00/E for additional details)

This position statement applies to high pressure breathing gas systems (pressures higher than 30 bar – or lower if deemed beneficial) supplying breathable oxygen (for medical and any other applications) or any other gas mixture with an oxygen content above or equal to 25% by volume (referred to as "breathing gas" for simplicity). It applies in particular to non metallic materials which if they ignite or decompose will contaminate the gas stream with toxic products.

Equipment already used in (or supplied for) breathing gas systems are to be assessed along the criteria described in the ANZIGA publication: *Assessment of suitability of equipment for service in gaseous oxygen and air in medical gas systems*.

New equipment for use in breathing gas systems are also to be selected along the criteria described in the ANZIGA publication: *Assessment of suitability of equipment for service in gaseous oxygen and air in medical gas systems*.

Suppliers of medical gases may also advise on which equipment have been found suitable for use in medical breathing gas systems according to the above criteria.

Risk Reduction Program

The gas supplier has an obligation to ensure breathing gas customers are aware of the potential hazards of halogenated polymers and work with their customers to minimise the risk.

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