



Australia New Zealand  
Industrial Gas Association

# HANDLING EXTERNALLY-SOILED MEDICAL CYLINDERS

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## **ANZIGA**

ANZIGA is the peak industry group for the manufacture and distribution of gases in Australia and New Zealand. As a leading industry association, ANZIGA promotes the highest standards of safety, quality and reliability.

### **ANZIGA aims to:**

- consult with government authorities and organisations that make policy or prepare regulations and standards which govern the production, transportation, storage, handling and use of gases.
- collaborate with other industry and trade organisations on safety and technical matters, including public programs that relate to the gases industry.
- produce information that promotes the safe storage, handling and use of gases.

The members of ANZIGA produce and distribute gases for the health and medical, manufacturing, food, scientific and hospitality industries.

### **Notice of Safety Advice**

In general a notice of Safety Advice is intended to provide information and relevant recommendations on a safety concern relating to the production, transportation, storage, handling and use of gases.

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## Introduction

*This position statement details the expected process for handling medical cylinders which have become externally soiled with biohazardous substances, including potential non-visible contamination. This typically includes cylinders that have suspected to have been in contact with airborne and blood borne pathogens and bodily fluids.*

## Position

In accordance with AS/NZS 3816 Management of clinical and related wastes, “*any establishment either generating or handling clinical and related waste shall be responsible for ensuring the safe disposal of such wastes.*”

In the instance of suspected external contamination of a medical gas cylinder, in most cases it is not feasible to dispose the cylinder, being a reusable container and the property of the gas company. It should therefore be appropriately cleaned before return to the supplier.

The healthcare organisation or individual shall be responsible for ensuring cylinders are returned with biohazard risk minimised, through appropriate cleaning where needed.

ANZIGA member company staff and contractors are not expected to handle cylinders where there is a perceived biohazard risk, and will be supported in their request to have the issue rectified before handling.

## Recommended Cleaning Method

It is important that the following cleaning method is followed in all instances. This is because some cleaning materials, such as ammonia or chlorine based bleach, have the potential to compromise the integrity of the cylinder or valve, and hence safe operation of the medical cylinder.

**Cylinders must be emptied in a safe manner before cleaning in order to avoid potential ignition due to alcohol and oxygen reactions. Ensure valves are closed and their inlets and outlets are covered prior to cleaning.**

**Initial cleaning** should be performed with warm water up to 50 degC using lint free cloth or paper to clean the entire container including valve, guard/ cover and related components with a focus on removing all visible soiling. Note: cleaning temperatures must be kept below 50 deg C; Note: detergents shall not be used even in diluted form. Discard wipes in an appropriate biohazard waste container.

**Final cleaning** should ideally be performed using isopropyl alcohol (IPA) wipes to fully wipe the cylinder/valve. Allow at least 10 minutes contact time before final wipe down with a damp lint free cloth or paper. Discard wipes in an appropriate biohazard waste container.

Do not use chlorine based cleaners as these may react with the cylinder components. If a chemical other than IPA is planned to be used during any stage

of the cleaning process, the cylinder supplier shall be notified to advise of its suitability and compatibility with the cylinder components.

Do not disassemble any part of the cylinder, particularly the removal of valve guards/covers, during the cleaning process. Hand clean only. Do not place cylinders in automatic cleaning or disinfection autoclaves. Appropriate Personal Protective Equipment (PPE) including gloves and eye protection should be worn throughout the cleaning process.

If the above cleaning is carried out and contamination is still evident, please contact the cylinder supplier to determine appropriate further handling.

## Reference

**AS/NZS 3816:1998 - Management of clinical and related wastes**

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