

AS 4146:2024



STANDARDS  
Australia



# Laundry practice

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AS 4146:2024

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- Accord Australasia
- Australasian College for Infection Prevention and Control
- Australian Society for Microbiology
- AWTA Product Testing (Testing Interests Australia)
- Drycleaning Institute of Australia
- HealthShare NSW
- Laundry Association (Australia)
- Laundry Dry Cleaning Training
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# Laundry practice

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## Preface

This Standard was prepared by the Standards Australia Committee TX-016, Laundry Practice to supersede AS/NZS 4146:2000.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to provide requirements and recommendations for the safe handling, laundering, transporting and storage of clean and soiled textiles in commercial, industrial, hospital, institutional, on-premises and retail laundries.

The major changes in this edition are as follows:

- (a) Removal of outdated appendices and addition of new content.
- (b) Updated terms and references.
- (c) Restructure of the document

The terms “normative” and “informative” are used in Standards (and other publications) to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

NOTE 1 This document includes advice on electrical safety; however, the user of this document needs to refer to relevant federal, state and territory, and local regulations to determine legal requirements as applicable.

NOTE 2 Australian Standards are voluntary, and do not include contractual, legal, or statutory requirements, with which Standards users are understood to conform to, and which take precedence.

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## Introduction

Textile articles used in commercial, industrial, hospital and institutional organisations are subjected to repetitive laundry processes to remove soiling, staining and chemical contaminants which may pose risks to human health through the transmission of infection and exposure to hazardous substances.

Commercial and industrial laundries process textiles from a wide variety of sources including manufacturing, food processing, entertainment, catering, accommodation and health care providers. This document identifies risks associated with laundering hospital linen, quilts, curtains plastic sheeting, and other textiles and specifies appropriate procedures for handling and mitigating those risks.

The laundry industry comprises five major segments: commercial, industrial, hospital, institutional and on-premises. This document also applies to retail laundries.

The industry sectors may be broadly described as follows:

(a) Commercial laundries operate in the private and public sector and handle textiles from —

- (i) hotels/motels;
- (ii) restaurants;
- (iii) shipping and transport;
- (iv) domestic or private sources;
- (v) aged and residential care; and
- (vi) hospitals and day procedure units.

The products serviced include —

- (A) sheets, pillow cases, towels, bedspreads, blankets, continuous towels, tea towels, table linen;
- (B) personal clothing; and
- (C) uniforms.

(b) Industrial laundries operate in the private sector and handle textiles from —

- (i) factories and manufacturers;
- (ii) offices, supermarkets, retail stores;
- (iii) food processors; and
- (iv) service stations.

The products serviced include—

- (A) protective clothing, e.g. overalls, aprons, uniforms, gloves;
- (B) leather/plastic safety wares including gloves, helmets, dust control mats, dust control mops and cloths;
- (C) painters' drop cloths;
- (D) car seat covers; and
- (E) reusable cleaning clothes

Laundry practices in this environment may include dry-cleaning as well as conventional laundering processes.

- (c) Healthcare laundries operate in health-related areas, handling textiles from —
- (i) hospitals — private, public and extended care facilities;
  - (ii) medical clinics;
  - (iii) dental surgeries;
  - (iv) aged and residential care facilities;
  - (v) mental health and rehabilitation facilities; and
  - (vi) pharmaceutical suppliers.

The products processed may include those items listed under “commercial” and the following:

- (A) General ward linen.
  - (B) Operating theatre textiles.
  - (C) Specialised hospital requirements (e.g. ward curtains).
  - (D) Staff uniforms.
  - (E) Patients’ apparel.
  - (F) Patients’ personal clothing.
- (d) Institutional laundries operate in corrective services and mental health facilities. The products serviced may include those items contained in “commercial” and “hospital”.
- (e) On-premises laundries operate in the hospitality and tourism industry, aged and residential care facilities, private and public hospitals, childcare facilities, education facilities, hairdressers, day-spas and in the manufacturing industry. These laundries provide a service for their own internal use.
- (f) Retail laundries operate in a different category, as they are intended for use by householders and small commercial operators (e.g. serviced units, boarding house operators, dry cleaners processing laundry and mobile laundry operators including home processing services). They are sometimes used by larger commercial operators due to time constraints. To ensure that the end result from these laundries is of a similar quality to other commercial laundries, retail laundries have been included in this document.

# Australian Standard®

## Laundry practice

### Section 1 Scope and general

#### 1.1 Scope

This document specifies requirements and recommendations for the safe handling, laundering, transporting and storage of clean and soiled textiles in commercial, industrial, hospital, institutional, on-premises and retail laundries.

#### 1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 2001.1, *Methods of test for textiles, Part 1: Conditioning procedures*

AS 2001.2.3.1, *Methods of test for textiles, Method 2.3.1: Physical tests — Determination of maximum forces and elongation at maximum force using the strip method*

AS 2001.3.6, *Methods of test for textiles, Method 3.6: Chemical tests — Determination of cuprammonium fluidity of cotton and cellulosic man-made fibres*

ISO 2267, *Surface active agents — Evaluation of certain effects of laundering — Methods of preparation and use of unsoiled cotton control cloth*

ISO 4312, *Surface active agents — Evaluation of certain effects of laundering — Methods of analysis and test for unsoiled cotton control cloth*

#### 1.3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

##### 1.3.1

##### **alkali**

alkaline salt (or combination of alkaline salts) used to increase the effectiveness of a soap powder or detergent by increasing the alkalinity of the wash liquor

##### 1.3.2

##### **bleached**

having had oxygen or chlorine bleach used to remove stains, enhance whiteness and disinfect fabric

##### 1.3.3

##### **breaking force**

measure of the tensile force required to rupture a sample of fabric

##### 1.3.4

##### **break-wash**

pre-wash with water at a maximum temperature of 35°C to remove loose and water-soluble soil

##### 1.3.5

##### **chemical damage**

loss in tensile breaking force of a fabric due to chemical degradation

##### 1.3.6

##### **clean textiles**

textile materials that have been laundered according to the requirements of this document