

Australian/New Zealand Standard™

**Microwavable heat packs—Wheat and
other organic filling materials**



AS/NZS 5116:2016

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-113, Microwavable Heat Packs. It was approved on behalf of the Council of Standards Australia on 10 May 2016 and by the New Zealand Standards Approval Board on 2 June 2016.

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The following are represented on Committee CS-113:

Agency for Clinical Innovation Burn Injury Network (Statewide Burn Injury Service)
Australasian Fire and Emergency Service Authorities Council
Australian Chamber of Commerce and Industry
Australian Competition and Consumer Commission
CHOICE
Consumers' Federation of Australia
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-113, Microwavable Heat Packs.

The objectives of this Standard include:

- (a) To provide suppliers and manufacturers of microwavable heat packs containing organic material such as wheat, or lavender, (but not limited to these) with requirements and test methods that will ensure these products perform in a predictable manner and that users are appropriately informed of their dangers.
- (b) To provide the user with safety warnings and instructions for use and maintenance of microwavable heat packs containing organic material to mitigate the risk of fire, smoke inhalation and contact burns leading to accidental death and injury associated with the improper use of these products. This Standard applies to microwavable heat packs in the form of heat packs, bags, pillows, children's products, items appealing to a child, or having play value, wearable products, and products of the like which contain organic materials including but not limited to wheat, rice, legumes, pulses, dried flowers, herbs, or other grains.
- (c) To reduce the level of accidental injury, death and property loss (and the associated social and economic costs to the community) arising from the design and improper use of microwavable heat packs.

Microwavable heat packs that meet this Standard should provide the user with sufficient information to assure they can use these products confidently and safely.

Compliance with the provisions of this Standard does not override failure to comply with the provisions of the Essential Principles of the Therapeutic Goods (Medical Devices) Regulations 2002 and the *Therapeutic Goods Act 1989*, or with other applicable Australian (federal, state or territory) or New Zealand laws and regulations.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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FOREWORD

Internationally, microwavable heat packs (MHP), typically those in the form of ‘wheat packs’ or ‘wheat bags’ have long been associated with fires which have resulted in fatalities, burns and property loss. The development of this Standard was prompted by the New South Wales Coroner’s recommendation arising from an inquest into one such death. Evidence garnered from firefighting services locally and internationally indicates the use of MHPs have been associated with both domestic fires and fires in aged care facilities.

MHPs are often perceived as being eco-friendly, safe and an inexpensive alternative to hot water bottles and they may be designed to look like toys to appeal to children. Their popularity has increased over time as they can be easily and cheaply made at home with few materials which are readily available in supermarkets and general stores, or purchased from a variety of retail outlets, at craft markets and online.

Issues arise because many people are generally uninformed about how to use these products safely. MHPs may not provide appropriate warnings and instructions and people may not appreciate these products may catch fire or smoulder when overheated, and can quickly generate life threatening levels of smoke. The injury data indicates injuries sustained from the improper use of MHPs relate mainly to smoke inhalation and contact burn injuries, particularly in the elderly, and in some cases children required medical treatment.

Existing Standards do not fully address the issues of the dangers arising from overheating wheat bags, using them in place of hot water bottles and electric blankets to warm beds, the potential choking and inhalation hazards posed by the filling when liberated and the risk of contact burns when used by people with reduced feeling on their skin, such as diabetics, and those with thinner or delicate skins as in the elderly, infants and children.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Microwavable heat packs—Wheat and other organic filling materials****1 SCOPE**

This Standard specifies design, construction, performance and labelling safety requirements and recommendations for microwavable heat packs filled with organic material and intended for use on the body.

This Standard applies to microwavable heat packs including wearable products, bags, pillows, children's products, and products of the like which contain organic materials including but not limited to wheat, rice, legumes, pulses, dried flowers, herbs or other grains.

This Standard does not apply to heat packs containing synthetics, chemicals, crystals, gels or liquids as heating material.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS ISO

8124 Safety of toys

8124.1 Part 1: Safety aspects related to mechanical and physical properties

ISO

7010 Graphical symbols—Safety colours and safety signs—Registered safety signs

3 DEFINITIONS

For the purposes of this document, the definitions below apply.

3.1 Child appealing microwavable heat pack

A microwavable heat pack (MHP) which because of its appearance, design, or features may encourage handling by a child. This may include being brightly coloured, shaped to resemble a person, animal, buildings, or vehicles or bearing images of animated characters.

3.2 Cover

A product designed to contain a MHP.

NOTE: The cover may be removable.

3.3 Filling material

Organic material which is for the purpose of storing heat in a MHP.

3.4 Legible

Capable of being read without difficulty by a person with normal visual acuity.

3.5 Microwavable heat pack (MHP)

A product (with or without a cover) containing filling and which is designed to be heated in a microwave oven for the purpose of providing a portable source of heat, which is generally applied to the body.