



Product Safety Policy Statement

Foam-filled furniture

Reducing the risk of fire-related harm from household furniture products

This product safety policy statement is issued by the Minister of Commerce and Consumer Affairs pursuant to section 30A of the Fair Trading Act 1986

Hon Kris Faafoi - Minister of Commerce and Consumer Affairs

On this day being: 17 July 2019

Introduction

This Product Safety Policy Statement is made by the Minister of Commerce and Consumer Affairs under section 30A of the Fair Trading Act 1986. It is being issued with the expectation that manufacturers and retailers will ensure their foam-filled furniture products are safe for consumers to have in their living spaces.

This Product Safety Policy Statement highlights the risks associated with foam-filled furniture as a class of goods. It provides guidance for manufacturers and retailers on reducing the risk of harm to consumers from fire, when foam-filled furniture is involved.

The Ministry of Business, Innovation and Employment (MBIE) will review this Product Safety Policy Statement within two years of being issued and report to the Minister of Commerce and Consumer Affairs.

Policy Statement approach and intention

A Product Safety Policy Statement enables industry to self-adjust, by establishing an expected safety benchmark for the goods that are subject of the statement. The intention is that the Product Safety Policy Statement will address the identified safety issues with those goods, without more formal regulatory intervention being required. There are two policy objectives underlying this Product Safety Policy Statement: to minimise deaths, injuries and damage to property, while also minimising the costs to industry, consumers and society as a whole.

A Product Safety Policy Statement allows the industry to voluntarily follow guidelines and create a positive change to help increase consumer safety. Product Safety Policy Statements are a comparatively new approach to product safety in New Zealand. The success of the approach will depend on the willingness of the industry to respond to voluntary guidelines.

MBIE recognises that tackling the risk to consumers emanating from foam-filled furniture requires a coordinated and responsible approach by government, manufacturers, importers and retailers working together. By working with the industry, MBIE hopes to guide the industry to making changes within its supply chain and manufacturers that effectively decreases the risk from foam-filled furniture.

Product Safety Policy Statements are a recent addition to the product safety regulatory regime in New Zealand. The success of the Product Safety Policy Statement will depend on the engagement of manufacturers and retailers in the development and implementation of guidance, and the monitoring of its impact. MBIE will work with the industry to map out a pathway to compliance between industry and MBIE, in order to decrease the number of preventable fire deaths and injuries to consumers. This approach relies on the industry to consider and, where necessary and practicable, to adjust its practices.

Definition of foam-filled furniture and scope of the Product Safety Policy Statement

What is foam-filled furniture?

Flexible polyurethane foam (FPUF) is a common component in a wide range of furniture sold in New Zealand. There are a number of risks associated with FPUF as it increases the combustibility and ignitability of furniture. A number of injuries and fatalities have been connected to the presence of FPUF.

The seating element of furniture often contains foams for added comfort. Other widely used types of foam that fill furniture are made from:

- Rubber-based biological material such as 100% natural latex derived from the sap of the rubber tree; or
- Petroleum-based chemicals such as polyurethane and synthetic latex (also known as natural latex) derived through the process to make petroleum from crude oil; or
- Petroleum-based chemicals combined with biological material such as rubber or soy.

Foam can be measured by density and firmness:

- Density can be measured by the weight of the foam per cubic metre/foot
- Firmness, or Indentation Force Deflection, can be measured by the weight it takes to compress the foam by one third

Scope of the Product Safety Policy Statement

For the purpose of this Product Safety Policy Statement, foam-filled furniture includes but is not limited to residential furniture that has been designed for personal use in living spaces such as houses, sleep-outs and baches, caravans and campervans, and recreational boats. This includes but is not limited to couches and seats, and mattresses and sleeping swabs.

For the purpose of this Product Safety Policy Statement, foam-filled furniture does not include commercial furniture that has been designed and tested for use in commercial settings.

There are a number of reasons why this Product Safety Policy Statement focuses on residential settings. Consumers are more at risk in residential settings than in a commercial property, because domestic premises often do not have to have sprinkler systems and fire extinguishers, fire-resistant escape routes, or are smoke-free. Consumers are also more likely to be asleep in their living spaces, further reducing the time available to escape from a fire. These factors reduce the amount of time consumers have to get away from a property when fire ensues.

Safety issues relating to foam filled furniture

Foam-filled furniture is a source of combustible material provides fuel in the event of a fire, as it can:

- catch fire easily
- burn and spread quickly
- give off toxic gases.

an average 3-piece suite made with flexible polyurethane foam has the combustible potential of 10 litres of fuel and is a high risk for harm or death through burns and/or inhalation of toxic gases

Manager Fire Investigation, Fire and Emergency New Zealand

Consumers need time to get away from fire when it threatens their life. Petroleum-based foam, such as FPUF, contain chemicals that increase the combustibility of a fire, increase the and danger from the fire due to the:

- Ease with which the chemicals ignite
- Speed with which the chemicals cause the fire to burn
- Heat energy the chemicals give off
- Toxic gases, such as carbon monoxide and hydrogen cyanide, the chemicals produce

“If petroleum-based foam-filled furniture catches fire, vast amounts of flammable fire gases are quickly released so that there is insufficient oxygen available to support combustion in the room. This leads to superheated flammable and toxic gases spreading throughout the building until they reach areas of fresh air. This then ignites, and causes the fire to extend into rooms that were previously untouched by the original source of the fire.”

Manager Fire Investigation, Fire and Emergency New Zealand

Coroner’s reports show that more people die of respiratory poisoning (ie through smoke inhalation) than of burns from the flames themselves. From 2006 to 2016, 177 people died in the course of avoidable residential structure fires. From 2012 to 2017 there were 1,227 fire-related injuries.

Guidance for manufacturer, importers and retailers

This Product Safety Policy Statement provides guidance and establishes a product safety benchmark for the goods that are the subject of the statement. This enables manufacturers and retailers to self-regulate in the foam-filled furniture industry to increase consumer safety.

The guidance sets out:

- a suggestion for a benchmark fire-resistance rating for foam-filled furniture
- guidance on how retailers, manufacturers and MBIE can inform consumers on the safety and fire-risks of foam-filled furniture
- a proposed mechanism for monitoring the impact of this Product Safety Policy Statement on the product safety regulatory regime

A benchmark fire-resistance rating for foam-filled furniture

Fire and Emergency New Zealand report that, prior to the introduction of FPUF, the time it took for a New Zealand residential room to become fully involved in fire could take up to 30 minutes. With the introduction of FPUF to furniture this has reduced to 3-4 minutes.

By limiting the risk of ignitability and combustibility of furniture, it is expected that the time that people have to escape a house fire can be increased. By following the implementation advice below, the furniture industry can contribute to fire safety. There are international jurisdictions that have mandatory fire safety standards for furniture that can be consulted as guidelines for the industry:

- United Kingdom: Upholstered Furniture (Fire) (Safety) regulations (HMSO, 1988)¹
- State of California: Technical Bulletin 116²
- Republic of Ireland: S.I. No. 336 – industrial Research and Standards (Fire Safety) (Domestic Furniture) Order, 1988³

Implementation advice for manufacturers and importers and retailers of foam-filled furniture

Under the Consumer Guarantees Act 1993, goods supplied to a consumer must be of acceptable quality. This includes a requirement that they must be safe. Under the Fair Trading Act 1986, goods are considered unsafe if with reasonably foreseeable use (including misuse), the goods will, or may, cause injury or harm to any person.

Manufacturers and importer

Manufacturers should consider the furniture as a whole. There are a range of ways to improve fire resistance, such as the chemical composition of the foam in furniture, and the use of fire resistant materials for fillings, interliners and outer covers.

To assist with the design, manufacture and sourcing of safer foams and materials for consumer products, the standards listed below set out performance and test criteria for ignitability.

- AS/NZS 3744.1 Furniture—Assessment of the ignitability of upholstered furniture. Ignition source—smouldering cigarette
- BS EN 1021-1 Furniture. Assessment of the ignitability of upholstered furniture. Ignition source smouldering cigarette
- BS 5852 Methods of test for assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources.
- AS/NZS 3744.2 Furniture—Assessment of the ignitability of upholstered furniture. Ignition source—match-flame equivalent
- BS EN 1021-2 Furniture. Assessment of the ignitability of upholstered furniture. Ignition source match flame equivalent
- BS 5852 Methods of test for assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources.

¹ <http://www.legislation.gov.uk/ukxi/1988/1324/contents/made>

² <http://www.bearhfti.ca.gov/industry/116.pdf>

³ <http://www.irishstatutebook.ie/eli/1988/si/336/made/en/print>

Manufacturers should measure the fire-resistance of foam-filled furniture, that is, the:

- time it takes for furniture to ignite; and/or
- temperature at which furniture produces a flashover (the sudden and rapid spread of fire through the air).

Manufacturers, retailers and importers are encouraged to consider the performance of their furniture against at least one of performance and test criteria referenced above.

Retailers

Retailers should inform consumers about the fire-resistance of foam-filled furniture. Consumers should be provided with additional information regarding features in relation to fire safety. Foam-filled furniture should have a fire-resistance rating that could be communicated through:

- Information on websites
- Signs on furniture
- Being told by the sales assistant
- Written statement
- Permanent labels on the furniture.

Monitoring and effectiveness

This Product Safety Policy Statement is intended to address concerns about the risks of combustibility and ignitability of foam-filled furniture in household furniture.

It is understood that it may take some time for redesigned products to become available to suppliers and consumers. Voluntary compliance with the Product Safety Policy Statement will be monitored closely over the next two years, and feedback on its effectiveness will be sought from the relevant stakeholders.

If the Product Safety Policy Statement is found to be ineffective in reducing the number of injuries and incidents related to foam filled furniture, other measures under the Fair Trading Act 1986 may be considered by the Minister. This may include regulations requiring compliance with a mandatory product safety standard.

If you have any questions, see

<https://www.consumerprotection.govt.nz/guidance-for-businesses/complying-with-consumer-laws/understanding-product-safety/>

or email

tradingstandards@mbie.govt.nz.