

EXPLANATORY STATEMENT

Issued by the Authority of the Minister for Small Business

Competition and Consumer Act 2010

Consumer Goods (Decorative Alcohol Fuelled Devices) Safety Standard 2017

Overview

The Australian Consumer Law (ACL) is the national law for fair trading and consumer protection. The ACL is set out in Schedule 2 of the *Competition and Consumer Act 2010* (Cth) (CCA) which applies as a law of the Commonwealth, States and Territories.

Under section 104 of the ACL, the Commonwealth Minister may make a safety standard for consumer goods, which sets out requirements to prevent or reduce injury.

Pursuant to section 104, the Commonwealth Minister for Small Business (the Minister) has made a safety standard for decorative alcohol fuelled devices (commonly known as 'ethanol burners').

The purpose of the Safety Standard is to prevent or reduce the risk of injury to consumers from uncontrolled fires associated with decorative alcohol fuelled devices, in particular table top devices. The Safety Standard reduces the risk of injury by requiring devices to:

- be a permanent fixture or have a dry weight of at least 8 kilograms and a footprint of at least 900 square centimetres;
- meet the stability test set out in a standard developed by the European Committee for Standardization;
- come with a fuel container with a flame arrester or an automatic fuel pump system; and
- display warnings on the device about refuelling hazards.

The Safety Standard comes into effect on 15 July 2017, immediately after a national interim ban on certain decorative alcohol fuelled devices ends. However, the Safety Standard includes a three month transition period. From 15 July 2017 to 14 October 2017, device suppliers have the option to comply with the specifications outlined above or the specifications from the national interim ban.

Background

In Australia, there have been at least 105 injuries and 36 house fires since 2010 involving decorative alcohol fuelled devices. Of the 105 injuries, the type of device is identified for 56 injuries. Of these 56 injuries, 45 relate to table top devices, five relate to freestanding devices and six relate to fixed devices. The injuries suffered have included second and third degree burns. There have also been at least three deaths that occurred overseas. Of the 36 house fires, the type of device is identified for 16 house fires. Of these 16 house fires, six relate to table top devices, six relate to freestanding devices and four relate to fixed devices.

Injuries and house fires most commonly occur when:

- ethanol vapour is ignited during refilling while the device is still alight or too hot causing a flash flame or uncontrolled fire
- fuel is spilled while filling the device leading to uncontrolled fires if the fuel comes into contact with an ignition source or hot surface
- the device is knocked over spreading burning fuel.

Table top devices appear to be the most dangerous due to their size and design.

State and territory interim bans

On 20 December 2016, the Western Australia Minister for Commerce imposed an interim ban under section 109 of the ACL (WA) on decorative alcohol fuelled devices excluding those: with a power output of more than 4.5 kilowatts (kW); that require installation in a fixed position; or that are designed for food warming. The interim ban came into effect on 21 December 2016 for a period of 60 days and was extended for a further period of 30 days.

Following the imposition of the interim ban in Western Australia, interim bans on the same terms were imposed by each other State and Territory.

National interim ban

On 16 March 2017, the Commonwealth Minister accepted the Australian Competition and Consumer Commission's (ACCC) recommendation to impose a national interim ban on certain decorative alcohol fuelled devices under section 109 of the ACL. In contrast to the earlier interim bans, the national interim ban also permitted devices that meet the minimum weight (8 kg) and footprint (900 cm²) – and, if these requirements are met, have a removable fuel tank (with warning) or come with a fuel container with a flame arrester (with warning). The national interim ban commenced on 17 March 2017 for an initial period of 60 days. This was extended for two further periods of 30 days to 14 July 2017.

The interim ban and the notices extending the ban period are registered on the Federal Register of Legislation.¹

Consultation

On 21 April 2017, the ACCC released a Consultation Regulation Impact Statement (RIS) outlining the possible policy options for decorative alcohol fuelled devices once the national interim ban ends. Eleven submissions were received. A summary of stakeholder submissions is included in the Decision RIS at Attachment 1.

Safety Standard for decorative alcohol fuelled devices

The Safety Standard comes into effect on 15 July 2017 when the national interim ban ceases to operate.

The Safety Standard is similar in effect to the national interim ban. However, in response to submissions and a technical expert report, the specifications in the national interim ban have been revised to:

- remove the provision in the national interim ban that would allow devices to be supplied, without any further requirements, where the power output is greater than 4.5 kilowatts;
- require devices to comply with the stability test in the European Standard;

¹ See the Federal Register of Legislation F2017L00236, F2017L00518 and F2017L00664.

- require all devices to be supplied with a fuel container with a flame arrester; and
- introduce the option to have an automatic fuel pump system instead of supplying a fuel container with a flame arrester.

The wording of the prescribed warnings has also been revised to reflect these changes, and to refer to the risk of death.

The ACCC estimates that this safety standard will provide a benefit of at least \$5.7 million to \$10.9 million per annum through reduced injuries and house fires. Although the total retail value of table top devices sold in Australia is not available, this benefit can be contrasted to the total value recorded by importers of table top devices into Australia, which would be impacted by the proposed safety standard, of \$1.05 million per annum.

Details of the *Consumer Goods (Decorative Alcohol Fuelled Devices) Safety Standard 2017*

Clause 1 – Name of Instrument

This clause provides that the title of the Instrument is the *Consumer Goods (Decorative Alcohol Fuelled Devices) Safety Standard 2017*.

Clause 2 – Commencement

This clause provides that the Instrument commences on 15 July 2017.

Clause 3 – Authority

This clause provides that the Instrument is made under section 104 of the ACL.

Clause 4 – Definitions

This clause sets out the following definitions.

- ***Decorative alcohol fuelled device*** means a consumer good that:
 - (a) produces a flame using alcohol as fuel; and
 - (b) is designed to be used primarily for decorative purposes.

The effect of this definition is that the Safety Standard does not apply to alcohol fuelled devices that are primarily used for purposes such as food warming or heating. 'Consumer good' is defined in section 2 of the ACL.

- ***Automatic fuel pump system***, for a decorative alcohol fuelled device, means an electronic device that:
 - (a) has a fuel hose that plugs into the decorative alcohol fuelled device; and
 - (b) pumps alcohol from a fuel container directly to the fuel tank of the decorative alcohol fuelled device.
- ***European standard*** means European Standard EN16647:2015 Fireplaces for liquid fuels - Decorative appliances producing a flame using alcohol based or gelatinous fuel - Use in private households, approved by the European Committee for Standardization, as in force on the commencement of this instrument.²

² Where practicable, product safety legislative instruments only reference extrinsic material that is readily accessible for free by the public. However, as in the current case, many product safety legislative instruments need to incorporate extrinsic technical standards over which bodies such as the European Committee for Standardization have copyright. In 2017, the European Standard could be purchased from SAI Global's website (www.saiglobal.com). The Australian Competition and Consumer Commission can make a copy of the European Standard available for viewing at one of its offices, subject to licensing conditions.

- **Flame arrester**, in relation to a fuel container, means a device that:
 - (a) is fitted securely into the neck of the fuel container; and
 - (b) is designed to absorb heat when exposed to flame, for the purposes of preventing heat or flame entering the fuel container and causing a fire or explosion.
- **Footprint**, of a decorative alcohol fuelled device, means the projected area beneath the device when the device is placed on a horizontal surface in the device's normal operating configuration.

Clause 5 – Requirements

Clause 5 requires decorative alcohol fuelled devices supplied on or after 15 October 2017 to meet the requirements in clauses 6, 7, 8 and 9.

Clause 6 – Design

Clause 6 requires a decorative alcohol fuelled device to: require installation in a fixed position; or have both a dry weight of at least 8 kg and a footprint of at least 900 cm².

Clause 7 – Stability

Clause 7 requires a decorative alcohol fuelled device to comply with the stability test in the European Standard.

Clause 8 – Refuelling

Clause 8 requires a decorative alcohol fuelled device to be supplied with either: a fuel container that incorporates a flame arrester; or an automatic fuel pump system for the device.

Clause 9 – Markings; and Schedule 1 - Warnings

Clause 9 and Schedule 1 require a decorative alcohol fuelled device to display a warning with the prescribed text. The warning must be permanent, prominent and legible. The text of the warning depends on the device. The following table summarises the warnings:

Warning required	Device with removable fuel tank	Device without a removable fuel tank	
	With flame arrester	With flame arrester	With automatic fuel pump system
Filling an alcohol fuelled device while lit has caused severe burns and deaths.	Yes	Yes	Yes
You must remove the fuel tank from the device before refilling.	Yes	No	No
When refilling only use containers with a flame arrester.	Yes	Yes	No
When refilling first check the flame is extinguished and that the device is cool.	Yes	Yes	Yes

The warnings do not cover the option of a removable fuel tank with an automatic fuel pump system as such a system is designed to pump alcohol from a fuel container directly to the fuel tank of the decorative alcohol fuelled device.

Clause 10 – Requirements before 15 October 2017

Clause 10 is a transitional provision. From 15 July to 14 October 2017, device suppliers have the option to comply with the requirements set out above or to continue to apply the specifications from the national interim ban which are set out in section 11.

Clause 11 – Alternative requirements before 15 October 2017

Clause 11 sets out the specifications from the national interim ban. A decorative alcohol fuelled device must:

- (a) have a power output more than 4.5 kilowatts; or
- (b) require installation in a fixed position; or
- (c) meet all of the following requirements:
 - (i) the device must have a dry weight of at least 8 kg and a footprint of at least 900 cm²;
 - (ii) if the device does not have a fuel tank that must be removed from the device for refuelling—the device must be supplied with a fuel container that incorporates a flame arrester; and
 - (iii) the device must display a permanent, prominent, legible warning with the prescribed text. The following table summarises the warnings:

Warning required	Device with removable fuel tank	Device without a removable fuel tank
Filling an alcohol fuelled device while lit has caused severe burns.	Yes	Yes
You must remove the fuel tank from the device before refilling.	Yes	No
When refilling only use containers with a flame arrester.	No	Yes
When refilling first check the flame is extinguished and that the device is cool.	Yes	Yes

Disallowance

This legislative instrument is not subject to disallowance due to section 44 of the *Legislation Act 2003*.

Commencement

This legislative instrument commences on the day specified in the instrument, which is 15 July 2017.

Sunsetting

This legislative instrument is exempt from sunseting. Item 16 in the table at clause 12 (Part 5) of the *Legislation (Exemptions and Other Matters) Regulation 2015* lists as exempt,

instruments made under section 104 of Schedule 2 (the Australian Consumer Law) to the *Competition and Consumer Act 2010*.

Regulation impact assessment

The Office of Best Practice Regulation (OBPR) advised that a Standard Form RIS was required for this matter (Reference 21872). The OBPR has assessed the Decision RIS at Attachment 1 as compliant with the Australian Government's RIS requirements, and consistent with best practice.

Attachment 1: Regulation Impact Statement

Decorative alcohol fuelled devices

ACCC recommendation to the
Minister

Decision Regulation Impact
Statement

[Public version]

23 June 2017



Office of Best Practice Regulation Reference – 21872

This document sets out the Australian Competition & Consumer Commission's recommendation to the Commonwealth Minister for a mandatory safety standard to apply to decorative alcohol fuelled devices.

Key dates

National interim ban commenced	17 March 2017
National interim ban (as extended by the Minister) last day of operation	14 July 2017
ACCC recommendation to Minister: National mandatory safety standard commences	15 July 2017 (with a transition period to allow device suppliers the option of complying with the specifications in the national interim ban from 15 July to 14 October 2017)

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Note: In this public version of the Decision Regulation Impact Statement, confidential material has been replaced with the words 'confidential' or 'C-I-C' (commercial-in-confidence).

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Executive summary

Recommendation

That Australian Competition and Consumer Commission (ACCC) recommends that the Commonwealth Minister for Small Business make a safety standard, under section 104 of the Australian Consumer Law (ACL), which requires decorative alcohol fuelled devices (that is, devices which are not primarily used for food warming) to:

- be a permanent fixture or have a dry weight of at least 8 kilograms and a footprint of at least 900 square centimetres;
- meet the stability test set out in the European standard; and
- come with a fuel container with a flame arrester or an automatic fuel pump system – and have the prescribed warning.

The safety standard should commence on 15 July 2017 but should include a three month transition period to allow device suppliers the option of complying with specifications from the national interim ban from 15 July to 14 October 2017.

Background

Decorative alcohol fuelled devices (commonly referred to as ‘ethanol burners’) are designed to produce a flame using alcohol as fuel. They can be movable or installed in a fixed position. The former category ranges from small, inexpensive devices designed to sit on a table (table top devices) to larger, heavier and more expensive devices that are portable but not intended to be moved around (freestanding devices).

Decorative alcohol fuelled devices have become increasingly popular in Australia, along with other countries. The total value recorded by importers of all devices imported into Australia from 1 July 2012 to 30 June 2016 was approximately \$5.7 million AUD.

However, there have also been increasing reports of serious injuries and deaths associated with the devices. Since 2010, the ACCC has received reports of 105 injuries and 36 house fires in Australia. The cost of injuries and house fires from table top devices alone is at least \$5.7 million to \$10.9 million per annum. The ACCC is also aware of three deaths that occurred overseas.

In 2015, the ACCC worked with the Queensland Office of Fair Trading to release a joint education campaign on the dangers of decorative alcohol fuelled devices. In 2016, following an application that the ACCC made in 2013 to the Department of Health, the Poisons Standard was amended to require certain methylated spirits containers to include a warning statement on the danger of refilling burners while in use or still warm.

In December 2016, following an incident where a Perth woman suffered serious burns, the Western Australia Minister for Commerce imposed an interim ban on decorative alcohol fuelled devices, excluding those: with a power output of more than 4.5 kilowatts (kW); that require installation in a fixed position; or that are designed for food warming. Interim bans on the same terms were then imposed by other States and Territories.

The State and Territory interim bans were replaced by a national interim ban, made by the Commonwealth Minister for Small Business under section 109 of the ACL, which came into effect on 17 March 2017 and was extended to 14 July 2017. In contrast to the earlier interim bans, the national interim ban also permits devices that meet the minimum weight (8 kilograms) and footprint (900 square centimetres) – and, if these requirements are met, have

a removable fuel tank (with warning) or come with a fuel container with a flame arrester (with warning).

In April 2017, the ACCC released a consultation paper on the development of a long term solution. The ACCC also obtained advice from Dohrmann Consulting, a technical expert in mechanical engineering, ergonomics and fire safety.

Options for the regulation of decorative alcohol fuelled devices

The ACCC's consultation paper focussed on five options:

- Option 1 No further action once the national interim ban ends
- Option 2 Make a mandatory safety standard for decorative alcohol fuelled devices with the same effect as the national interim ban. Note that, following consultation and the expert report, the ACCC has revised Option 2. The safety standard recommended by the ACCC differs from the national interim ban in that the standard: deletes the 4.5 kW test; includes a stability test; requires all devices to be supplied with a flame arrester/fuel pump; and varies the warnings.
- Option 3 Make a mandatory safety standard that requires all containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester
- Option 4 Make a mandatory safety standard that combines Options 2 and 3
- Option 5 Make a permanent ban on table top devices

The ACCC received 11 submissions in response to the consultation paper:

- Five parties (a fuel supplier, Recochem Inc; two government organisations (confidential) and New Zealand Fire Service; and two device suppliers, Ambience Eco Fires and (confidential)³) support a standard applying only to device suppliers.
- One party (a device supplier, (confidential)) supports a standard applying only to fuel suppliers.
- One party (device supplier, The Fire Company) supports a standard applying to both device and fuel suppliers.
- Two parties (a consumer and a device supplier (confidential)) support a permanent ban.
- Two parties (device suppliers, (confidential) and Solair Pty Ltd) support some form of government action to reduce the risks of devices. Solair Pty Ltd also refers to the need for more education and information.

Cost-benefit analysis

Each of the policy options has been considered against the legislative tests in the ACL. Where possible, the ACCC has also assessed the quantifiable net cost-benefit of the options.

The ACCC estimates that Option 2 (a safety standard applying to decorative alcohol fuelled devices) will provide a benefit of between \$5.7 million to \$10.9 million per annum by

³ The device supplier (confidential) also welcomes the initiative of Option 3 but emphasises the need to implement Option 2 without amendment to allow the development of a detailed voluntary standard.

preventing table top devices⁴ (along with requiring fixed and freestanding devices to come with a flame arrester/pump and warning). Although the total retail value of table top devices sold in Australia is not available, this benefit can be contrasted to the total value recorded by importers of table top devices into Australia, which would be impacted by the proposed safety standard, of \$1.05 million per annum.

In contrast, the ACCC estimates that Option 3 (a safety standard applying to fuel suppliers) would have a net cost. The cost of injuries and property damage from the 28 injuries and 3 house fires involving refuelling table top devices is estimated to be at least \$3.7 million to \$7.2 million per annum. The benefit of Option 3 is less than Option 2 as it does not address other hazards such as a device being knocked over while lit. The net benefit is also impacted by the additional cost on fuel suppliers. Only a small percentage of customers use methylated spirits for decorative alcohol fuelled devices – most use methylated spirits for cleaning. As Option 3 has a net cost, the ACCC also estimates that the net benefit of Option 4 (which combines Options 2 and 3) is likely to be less than Option 2.

The ACCC estimates Option 5 (a permanent ban) to have the same benefit as Option 2. However, the qualitative evidence suggests that the cost of Option 5 for device suppliers is likely to be greater than Option 2 due to the impact of a ban on the reputation of suppliers of safe devices. Option 2 is also more likely to facilitate a process by which device suppliers and Standards Australia can develop a voluntary standard with more detailed specifications for decorative alcohol fuelled devices to protect consumers.

Option 2 is identified as the option most likely to result in the largest net public benefit. Attachment A provides further detail on how these figures were derived and identifies costs and benefits which cannot be quantified in this process.

Safety standard applying to device suppliers

The main issue raised in submissions was the specifications in a safety standard applying to decorative alcohol fuelled devices. The ACCC has recommended a safety standard that would allow the supply of decorative alcohol fuelled devices (that is, devices which are not primarily used for food warming) provided that they:

- are a permanent fixture or they have a dry weight of at least 8 kilograms and a footprint of at least 900 square centimetres;
- meet the stability test set out in the European standard; and
- come with a fuel container with a flame arrester or an automatic fuel pump system – and have the prescribed warning.

As part of this recommendation, a three month transition period is proposed. The safety standard would commence on 15 July 2017 but would allow device suppliers the option of complying with specifications from the national interim ban from 15 July to 14 October 2017.

Based on the submissions and the expert report, the safety standard recommended by the ACCC makes the following changes to the national interim ban:

- Devices with a power output greater than 4.5 kW are no longer exempt. The expert report and device suppliers agree that power output is irrelevant to overall safety.

⁴ Note that a table top device would be permitted if it has a dry weight of at least 8kg and a footprint of at least 900cm², satisfies the stability test in the European standard, and is supplied with a flame arrester/fuel pump and the required warning. The issue of specifications is discussed in section 10.

- Devices must comply with the stability test specified in the European standard (which is adopted in other countries such as Germany). This issue is discussed below.
- Fixed devices and devices with a removable fuel tank – like devices without a removable fuel tank – have to be supplied with a fuel container with a flame arrester. The expert report and a device supplier (The Fire Company) provided evidence on the benefit of a flame arrester.
- Device suppliers may supply an automatic fuel pump instead of a fuel container with a flame arrester. The expert report confirmed the evidence provided by one device supplier on the safety of its fuel pump system.
- The wording of the warnings is revised to reflect these changes, and to refer to deaths.

On the issue of stability, the expert report advised that it is essential that a test be adopted that captures the position of a device's centre of gravity. A device could pass the 8 kilograms, 900 square centimetres test but be fitted with long, spider-like legs that make it top-heavy. On 30 May 2017, the ACCC contacted stakeholders to seek views on the stability test proposed in the expert report. Seven submissions were received in response:

- One party (a device supplier (confidential)) supported the test.
- Four parties (Ambience Eco Fires; two device suppliers (confidential); and The Fire Company) referred to tests in international standards.
- One party (Department of Commerce WA) supported additional criteria but raised concerns over the proposed stability test, and its impact on barriers to international trade.
- One party (New Zealand Fire Service) supported some form of stability test.

In light of the expert report, submissions and the timeframe available for this project, the ACCC's recommended safety standard incorporates the stability test specified in the European standard.

Next steps

The ACCC recommends to the Minister that he makes a safety standard under section 104 of the ACL, to apply to decorative alcohol fuelled devices. Such a standard is reasonably necessary to prevent or reduce serious burn injuries and property damage by removing table top devices from the market, and requiring fixed and freestanding devices to be supplied with warnings and a fuel container with flame arrester (or an automatic fuel pump).

If the Minister makes such a safety standard, device suppliers are expected to undertake a voluntary recall and provide refunds to consumers who have purchased unsafe devices that do not, in substance, meet the requirements of the proposed safety standard. The ACCC will monitor the progress of voluntary recalls, and compliance by device suppliers with the standard.

However, the requirement for any Ministerial decision to be in place by 14 July 2017 has limited the extent to which the ACCC has been able, in the current process, to assess additional safety requirements to protect consumers such as flame and refilling controls. In particular, the proposal by some device suppliers to apply to Standards Australia for the development of a voluntary standard is supported, as it may address matters similar to those covered in the European standard. The ACCC will continue to monitor reports of injuries and house fires, and will review the safety standard following the processes for the European and US standards and the development of a voluntary standard by Standards Australia.

Decorative Alcohol Fuelled Devices Regulation Impact Statement summary

Problem

Decorative alcohol fuelled devices are associated with serious injuries and deaths. Since 2010, there have been at least 105 injuries and 36 house fires involving decorative alcohol fuelled devices in Australia, with a cost of at least \$14.3 million to \$27.2 million per annum. The ACCC is also aware of three deaths that occurred overseas.

Recommended option

A safety standard, under section 104 of the Australian Consumer Law, which requires decorative alcohol fuelled devices (that is, devices which are not primarily used for food warming) to:

- be a permanent fixture or have a dry weight of at least 8 kilograms and a footprint of at least 900 square centimetres;
- meet the stability test set out in the European standard; and
- come with a fuel container with a flame arrester or an automatic fuel pump system – and have the prescribed warning.

Options considered

- No further action once the national interim ban ends
- Make a mandatory safety standard for decorative alcohol fuelled devices
- Make a mandatory safety standard that requires all containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester
- Make a mandatory safety standard that combines Options 2 and 3
- Make a permanent ban on table top devices

Benefits/costs

- Benefit of Option 2 (a safety standard applying to decorative alcohol fuelled devices): Between \$5.7 million and \$10.9 million per year (the cost of injuries and house fires from table top devices). Although the total retail value of table top devices sold in Australia is not available, this benefit can be contrasted to the total value recorded by importers of table top devices into Australia, which would be impacted by the proposed safety standard, of \$1.05 million per annum.
- Option 3 (a safety standard applying to fuel suppliers) would have a net cost. The cost of injuries and house fires involving refuelling table top devices is at least \$3.7 million to \$7.2 million per annum. The benefit of Option 3 is less than Option 2 as it does not address other hazards such as a device being knocked over while lit. The net benefit is also impacted by the additional cost on fuel suppliers. Only a small percentage of customers use methylated spirits for decorative alcohol fuelled devices – most use methylated spirits for cleaning. For the same reason, the net benefit of Option 4 (a safety standard applying to both device and fuel suppliers) would be less than the net benefit of Option 2.
- Option 5 (a permanent ban) would have the same benefit as Option 2. However, the qualitative evidence suggests that the cost of Option 5 for device suppliers is likely to be greater than Option 2 due to the impact of a ban on the reputation of suppliers of safe devices. Option 2 is also more likely to facilitate a process by which device suppliers and Standards Australia can develop a voluntary standard with more detailed specifications for decorative alcohol fuelled devices to protect consumers.

Evaluation

The recommended safety standard for decorative alcohol fuelled devices provides the greatest net public benefit. As required by section 104 of the Australian Consumer Law, it would impose requirements that are reasonably necessary to prevent or reduce risk of injury.

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1. Introduction

This paper sets out the ACCC's recommendation to the Minister for the development of a safety standard under section 104 of the ACL to address the safety hazards posed by certain decorative alcohol fuelled devices.

2. Background

Decorative alcohol fuelled devices

Decorative alcohol fuelled devices are designed for domestic use producing a flame using alcohol as fuel. The devices are primarily used for decoration although larger models also provide heating. The devices are easily installed because they do not require a chimney.

There are three common types of decorative alcohol fuelled devices:

- Table top devices – small, inexpensive devices designed to sit on a table.
- Freestanding devices – larger, heavier and more expensive than table top devices. While most are portable, they are not intended to be moved around and are likely to stand on the floor or be placed against a wall or in a prominent position as a feature.
- Fixed devices – require installation in a fixed position (usually wall-mounted or recessed), often referred to as 'fireplaces'.

The cost of decorative alcohol fuelled devices ranges from less than \$100 to several thousands of dollars. There is also significant variation in the safety features included in devices on the market, which are often dependent on the size of the product. Smaller products have less scope for the inclusion of safety features due to their size and design.

The market for decorative alcohol fuelled devices has expanded significantly over the last 14 to 15 years. The ACCC has identified relevant imports based on a subset of figures originally provided by the Department of Immigration and Border Protection.⁵ These figures show that the total value recorded by importers of all decorative alcohol fuelled devices imported into Australia from 1 July 2012 through to 30 June 2016 was approximately \$5.7 million AUD (\$1.4 million per annum). This includes table top devices, wall-mounted devices, larger and non-portable devices. Although there were approximately 167 individual importers over the four year period, the top 15 importers (by value of imports) accounted for approximately 79% of the imports.

Fuel for decorative alcohol fuelled devices

The fuel is typically ethanol in a liquid form or (less commonly) gel form, and is stored in a tank or attached vessel. The most common form is methylated spirits (ethanol and around 10% methanol) which may also be marketed as bio-ethanol or eco-fuel.

Consumers may purchase the fuel from the supplier of the device or from other sources such as supermarkets, hardware stores and camping/outdoors stores.

3. Policy problem

There have been increasing reports in Australia of serious injuries associated with decorative alcohol fuelled devices.

⁵ Department of Immigration and Border Protection, *Import data*, Canberra ACT, 2017.

The ACCC has obtained incident and injury data from a range of sources, including State and Territory emergency and fire departments, State Wide Burn Injury Service, NSW, State Injury Surveillance Units, State and Territory ACL product safety co-regulators, mandatory injury reports to the ACCC by suppliers, consumer complaints to the ACCC InfoCentre and media reports.

Since 2010, there have been at least 113 reported incidents in Australia involving decorative alcohol fuelled devices. These incidents are associated with 105 injuries and 36 house fires.

Of the 105 injuries since 2010, the device is identified for 56 injuries. Of these 56 injuries, 45 relate to table top devices, five relate to freestanding devices and six relate to fixed devices. Of the 45 injuries involving table top devices, 28 of these occurred when the device was being refilled or had just been refilled. The injuries suffered have included second and third degree burns requiring intensive care, skin grafts, numerous operations, lengthy stays in hospital and ongoing physiotherapy for a year or more. Consumers ranging in age from newborn babies to pensioners have suffered serious injuries requiring hospital treatment.

Of the 36 house fires since 2010, the device is identified for 16 house fires. Of these 16 house fires, six relate to table top devices, six relate to freestanding devices and four relate to fixed devices.

Based on incident data received by the ACCC, consultation with suppliers and the report by Dohrmann Consulting, injuries and house fires most commonly occur when:

- ethanol vapour is ignited during refilling while the device is still alight or too hot causing a flash flame or uncontrolled fire
- fuel is spilled while filling the device leading to uncontrolled fires if the fuel comes into contact with an ignition source or hot surface
- the device is knocked over spreading burning fuel.

Table top devices appear to be the most dangerous as:

- The product design requires the user to refill the device in the same location as the fuel vessel where the flame is ignited. An ethanol flame can sometimes be invisible and in many of these incidents, it appears the user refilled the device while it was still lit or still hot, causing the fuel to explode.
- The devices typically have a short burn time due to their limited fuel capacity. This means more frequent refuelling during the course of a single use period, which may lead to refuelling while the device is still warm.
- The devices are less stable so are more likely to be knocked over.
- Due to size, the devices are less likely to include mechanisms to improve safety.

Other causes of incidents such as incorrect fuel being used, incorrect installation (e.g. fixed devices falling off the wall), environmental causes such as wind blowing flames on to combustible material, or risks from the gases produced by the burning flame appear to be less common.

4. Australia's consumer product safety framework

Australian Consumer Law

Product safety regulation addresses the difficulty that consumers have in assessing the safety of a product (information asymmetry), and the impact that a product may have on other parties such as bystanders or the health care system (negative externalities).

The Australian consumer product safety framework is underpinned by the ACL, which took effect on 1 January 2011.

Under the ACL, suppliers are responsible for selling consumer goods that are safe and fit for purpose. The ACL provides consumers with specific protections for consumer transactions called statutory consumer guarantees every time they purchase goods or services. One of those guarantees is that goods will be of acceptable quality, defined in the ACL as being safe, fit for purpose and free from defects.

In addition, under specific provisions of the ACL, Commonwealth, State and Territory Ministers can regulate consumer goods and product-related services by:

- issuing safety warning notices
- banning products on an interim basis
- issuing a compulsory recall notice to suppliers (in relation to goods only)
- in relation to the Commonwealth Minister: declaring mandatory safety standards (under section 104 of the ACL, a standard may impose requirements that 'are reasonably necessary to prevent or reduce risk of injury to any person')
- in relation to the Commonwealth Minister: imposing permanent bans (under section 114 of the ACL, a permanent ban may be imposed where an interim ban is in force or the good 'will or may cause injury to any person').

These specific provisions are considered in circumstances of safety related market failure.

In relation to recalls, under section 128 of the ACL, a supplier can voluntarily take action to recall consumer goods of a particular kind if:

- a) the goods will or may cause injury; or
- b) a safety standard for such goods is in force and the goods do not comply with the standard; or
- c) an interim ban or a permanent ban on such goods is in force.

In addition, the Commonwealth Minister may, under section 122 of the ACL, issue a compulsory recall notice if it appears to the Minister that:

- a) such goods will or may cause injury; a safety standard for such goods is in force and the goods do not comply with the standard; or an interim ban or a permanent ban on such goods is in force; and
- b) one or more suppliers of such goods have not taken satisfactory action to prevent the goods causing injury.

Failure to notify a voluntary recall to the ACCC or act on a compulsory recall notice issued by the Commonwealth Minister may result in a significant pecuniary penalty.

Voluntary Australian standards

Standards Australia is a not-for-profit standards organisation that develops voluntary Australian standards through the formation of expert technical committees.⁶ Currently there is no voluntary Australian standard for decorative alcohol fuelled devices. Any person or organisation can submit a project proposal to Standards Australia to seek the development or amendment of a standard.⁷

5. Government action

Poisons Standard and education campaign

In November 2013, the ACCC made an application to the Department of Health seeking an amendment to the Poisons Standard under the *Therapeutic Goods Act 1989* to require certain fuel containers to include a warning on refilling a burner. As part of this process, the ACCC engaged with suppliers of decorative alcohol fuelled devices and methylated spirits for information about the safety of decorative alcohol fuelled devices, and to seek their views on the proposal to amend the entry in the Poisons Standard for methylated spirits.

The amendment came into effect in February 2016. The Poisons Standard currently sets out the following requirements for methylated spirits:⁸

- For methylated spirits when packed and labelled as a biofuel suitable for use in spirit burners: The container must include the following statement: 'WARNING: Do not attempt to refill burner while it is in use or still warm; it could lead to serious burn injury'.
- For methylated spirits containers of a capacity of 5 litres or less, or when packed and labelled as a biofuel suitable for use in spirit burners: The container must include certain statements in relation to First Aid.
- For methylated spirits containers of a capacity of 5 litres or less, or when packed and labelled as a biofuel suitable for use in spirit burners: The container must meet certain packing requirements including the warnings 'Poison', 'Caution' and 'Do not swallow'.
- For methylated spirits containers of a capacity of 5 litres or less: The container must be closed with a child-resistant closure.

In 2015, the ACCC and Queensland Office of Fair Trading released a joint education campaign on the dangers of decorative alcohol fuelled devices, which was published on the Product Safety Australia website and social media. The campaign included the release of a video 'Don't Fuel the Fire',⁹ to demonstrate to consumers the safety hazards associated with refilling devices while still lit.

State and Territory interim bans

On 20 December 2016, the Western Australia Minister for Commerce, the Hon. Michael Mischin MLC, by written notice published on the internet under section 109(1)(a) of the ACL

⁶ Standards Australia 2017, Sydney Australia, viewed 24 March 2017, www.standards.org.au/Pages/default.aspx

⁷ Standards Australia 2017, Proposing a project, Sydney Australia, viewed 24 March 2017, www.standards.org.au/StandardsDevelopment/Developing_Standards/Pages/Proposing-a-project.aspx

⁸ Australian Government Federal Register of Legislation, 2017 Poisons Standard, Canberra, ACT, viewed 29 March 2017, www.legislation.gov.au/Details/F2017L00057. Some suppliers already included a warning. For example, 'Diggers' (the leading brand of methylated spirits distributed in Australia) included, under 'Directions for use', the statement: 'Fill methylated spirits burner ONLY when flame is extinguished and burner has cooled'.

⁹ Australian Competition & Consumer Commission, Product Safety Australia website, Canberra, ACT, viewed 29 March 2017, www.productsafety.gov.au/news/decorative-alcohol-fuelled-devices.

(WA), imposed an interim ban on decorative alcohol fuelled devices, excluding those with a power output of more than 4.5 kW, those that require installation in a fixed position and those designed for food warming. The interim ban came into effect on 21 December 2016 for a period of 60 days and was extended for a further period of 30 days.

The Western Australian interim ban was imposed following an incident where a Perth woman suffered serious burns to her face and upper body after a decorative alcohol fuelled device exploded in October 2016. Soon after the Perth incident, two people were injured on Queensland's Sunshine Coast in an incident involving a decorative alcohol fuelled device.

Following the imposition of the interim ban in Western Australia, interim bans on the same terms were imposed by each other State and Territory.

National interim ban

On 21 December 2016, the Commonwealth Minister for Small Business, the Hon. Michael McCormack MP (the Minister), published a proposed national interim ban notice on decorative alcohol fuelled devices in the same terms as the State and Territory interim bans.

The proposed interim ban notice invited suppliers of decorative alcohol fuelled devices to request a conference to be held by the ACCC in relation to the proposed imposition of the interim ban. Eight suppliers requested a conference with the ACCC, which was held on 2 February 2017.

Having regard to supplier submissions and the incident data obtained by the ACCC, the ACCC recommended that the Minister impose an interim ban on modified terms to the draft interim ban notice. These terms include an exclusion, in addition to the exclusions provided under the State and Territory interim bans, which would have the effect of allowing the supply of the devices, provided they:

- have a power output greater than 4.5 kW; or
- are a fixture; or
- are primarily used for food warming; or
- meet the minimum weight (8 kilograms) and footprint (900 square centimetres) – and, if these requirements are met, have a removable fuel tank (with warning) or come with a fuel container with a flame arrester (with warning).

The ACCC considered this an appropriate balance between banning the supply of devices (in particular, table top devices) which may cause serious injury, while permitting the supply of larger freestanding devices, provided they incorporate adequate safety measures to protect the user when refuelling.

The Minister accepted the ACCC's recommendation to impose a national interim ban, which came into effect on 17 March 2017 for an initial period of 60 days. This was extended to 14 July 2017.¹⁰

6. International comparison

Overview

In 2010, a report was prepared for the European Commission General Product Safety Directive (GPSD) Committee on safety requirements for fireplaces that burn alcohol and

¹⁰ The Minister is able to extend an interim twice for a period of up to 30 days on each occasion, meaning the ban can remain in force for a total of 120 days.

primarily serve decorative purposes.¹¹ The report summarises accident data in certain European countries prior to 2010. The ACCC is also aware of three reported deaths overseas involving decorative alcohol fuelled devices since 2010. Two of the deaths occurred in the United States¹² and one death occurred in the United Kingdom.¹³ The deaths in the United States both occurred when the consumers were refilling the device directly after it had been in use. The death in the United Kingdom was the result of a house fire allegedly caused by a bio-ethanol burner.

In 2015, the European Commission adopted a decision setting out the safety requirements to be met by European standards for alcohol-powered flueless fireplaces: (EU) 2015/547 (European Commission Decision).¹⁴

The European Committee for Standardization (CEN) is a not-for-profit standards organisation that develops voluntary standards for use in Europe through the formation of expert technical committees.¹⁵ In 2015, CEN published the voluntary standard, EN 16647:2015 *Fireplace for liquid fuels – Decorative appliances producing a flame using alcohol based or gelatinous fuel – Use in private households*¹⁶ (EN standard or European standard).

In the United States, Underwriters Laboratories (UL) develops voluntary safety standards through the formation of standards technical panels.¹⁷ In 2016, UL published the third revision of UL 1370 Standard for safety – *Unvented Alcohol Fuel Burning Decorative Appliances*¹⁸ (UL standard).

Table 1 compares requirements for key safety features across the European standard, European Commission Decision and United States standard. The ACCC is not aware of any reviews of the impact of these international approaches on injuries and property damage from decorative alcohol fuelled devices.

European standard

The European Commission Decision applies to devices that:

- are for domestic use;
- are for use indoors;
- use alcohol as fuel; and
- are used for decoration, not food preparation or heating.

The Commission Decision requires such a device to have a maximum power output of 4.5kW.

¹¹ Report prepared for the GPSD Committee, May 2010, [Study of Safety Requirements for Open Stoves or Fireplaces Using Alcohol Fuels](#)

¹² US Consumer Product Safety Commission, 2011, Fire Pots and Gel Fuel; Advance Notice of Proposed Rulemaking; Request for Comments and Information, viewed 29 March 2017, www.regulations.gov/document?D=CPSC-2011-0095-0001

¹³ Stoke Sentinel 2012, Warning on bio fuel fires after woman's death, United Kingdom, viewed 29 March 2017, www.stokesentinel.co.uk/warning-bio-fuel-fires-woman-s-death/story-16456191-detail/story.html

¹⁴ European Commission, Commission Decision (EU) 2015/547, Brussels, Belgium, viewed 24 March 2017, eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2015.090.01.0014.01.ENG

¹⁵ European Committee for Standardization, 2017, Brussels, Belgium, viewed 24 March 2017, www.cen.eu/Pages/default.aspx

¹⁶ CEN (European Committee for Standardization), European standard, EN 16647:2015 *Fireplace for liquid fuels – Decorative appliances producing a flame using alcohol based or gelatinous fuel – Use in private households*

¹⁷ Underwriters Laboratories Inc., 2017, Illinois, USA, viewed on 31 March 2017, www.ul.com/

¹⁸ Underwriters Laboratories Inc., 2011, UL 1370 Standard for safety – *Unvented Alcohol Fuel Burning Decorative Appliances*

The EN standard applies to mounted, freestanding and built in devices but only where the device:

- is for domestic use;
- is for use indoors;
- has a maximum power output of 4.5kW;
- has a fuel tank that is not separate from the appliance;
- uses alcohol as fuel (minimum 95% ethanol); and
- is used for decoration, not food preparation or heating.

The European standard requires the device to meet requirements relating to:

- construction (including fuel volume; mechanism to extinguish the flame; materials; stability; and ignition); and
- warnings and other safety related material.

The European standard is not a harmonised standard listed in the Official Journal of the European Union, so conformance with this standard does not provide a presumption of safety in the European Union.

The European Commission Directorate-General for Justice and Consumers Product Safety and Rapid Alert System advised the ACCC that given the EN standard was developed before the Commission Decision it is to be reviewed to ensure compliance with the safety requirements in the Commission Decision.

UL standard

The UL standard only covers devices that:

- are intended to be fixed (it does not cover freestanding devices);
- are used for decoration, not heating or cooking; and
- use alcohol as a fuel.

The ACCC has been in contact with the US Consumer Product Safety Commission who advised that work is underway with ASTM International, formerly known as the American Society for Testing and Materials (ASTM), to develop a voluntary standard for unvented liquid and gel fuel burning portable devices.

Table 1: Comparison of safety features across international standards

Key safety features	UL standard	EN standard	European Commission Decision
Prevent refilling of fuel while burner is lit	No	No	Yes
Prevent reigniting while burner is hot	Yes	Yes	Yes
Easily accessible flame extinguishing mechanism	Yes	Yes	Yes
Prevent fuel spillage	Yes	Yes	Yes

Key safety features	UL standard	EN standard	European Commission Decision
Prevent tipping	Yes	Yes	Yes
Maximum fuel capacity	Yes	Yes	Yes
Warning label	Yes	Yes	Yes
User manual	Yes	Yes	Yes

The ACCC's Consultation Regulation Impact Statement (RIS) invited stakeholders to comment on whether a mandatory safety standard for decorative alcohol fuelled devices should adopt relevant parts of the EN standard, Commission Decision and/or UL standard. This is discussed in section 10 below.

7. Consultation

Following the commencement of the national interim ban on 17 March 2017, the ACCC, on 21 April 2017, released a Consultation RIS to inform the development of a long term solution for decorative alcohol fuelled devices. The consultation paper was developed in collaboration with the Office of Best Practice Regulation (OBPR) as part of OBPR's Early Assessment.

Based on the ACCC's engagement with the industry and analysis of market and incident data, the consultation paper identified the following policy options.

- Option 1 No further action once the national interim ban ends
- Option 2 Make a mandatory safety standard for decorative alcohol fuelled devices with the same effect as the national interim ban
- Option 3 Make a mandatory safety standard that requires all containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester
- Option 4 Make a mandatory safety standard that combines Options 2 and 3
- Option 5 Make a permanent ban on table top devices

The consultation paper invited submissions by 21 May 2017. In response, the ACCC received eleven written submissions from stakeholders (Table 2).

Table 2: List of stakeholders who made a submission

Consumer (one)	<ul style="list-style-type: none"> • Christine Lizzul
Suppliers of ethanol devices (seven)	<ul style="list-style-type: none"> • Device supplier (confidential)
	<ul style="list-style-type: none"> • Solair Pty Ltd
	<ul style="list-style-type: none"> • The Fire Company
	<ul style="list-style-type: none"> • Device supplier (confidential)

	<ul style="list-style-type: none"> • Ambience Eco Fires
	<ul style="list-style-type: none"> • Device supplier (confidential)
	<ul style="list-style-type: none"> • Device supplier (confidential)
Supplier of methylated spirits (one)	<ul style="list-style-type: none"> • Recochem Inc. (Diggers TM) (includes information provided in confidence)
Government organisations (two)	<ul style="list-style-type: none"> • Government organisation (confidential)
	<ul style="list-style-type: none"> • New Zealand Fire Service

The ACCC also conducted six meetings (by phone/video or in person) with individual suppliers. The key issues raised by parties is summarised in Table 3.

Table 3: Key issues summarised from submissions

Consumer	
Christine Lizzul	<ul style="list-style-type: none"> • Seeks a refund. • Supports permanent ban.
Suppliers of ethanol devices	
Device supplier (confidential)	<ul style="list-style-type: none"> • Supports permanent ban of table top devices as would send a stronger message than safety standard. • Also discusses Option 3 (suggests alternative specification for fuel containers).
Solair Pty Ltd	<ul style="list-style-type: none"> • Government action is required to reduce the risks from devices. • More education and information.
The Fire Company	<ul style="list-style-type: none"> • Supports Option 4: Main concern is specifications for devices (discussed further below). • Fuel supplies: Prefers Option 4 but if Option 2 is recommended then all devices should be required to be supplied with jerry can/dispensing nozzle with flame arrester or specifically marketed fuel fitted with flame arrester.
Device supplier (confidential)	<ul style="list-style-type: none"> • Supports Option 2 with no changes to specifications to avoid confusion. • Also sees Option 3 as a good initiative, but should capture wider fuel supplies.
Ambience Eco Fires	<ul style="list-style-type: none"> • Supports Option 2: Main concern is specifications for devices.
Device supplier (confidential)	<ul style="list-style-type: none"> • Prefers Option 3. Also raises concerns over the specifications in Option 2.
Device supplier (confidential)	<ul style="list-style-type: none"> • Government action is required to reduce the risks from refuelling from devices (no additional detail provided).
Supplier of methylated spirits	
Recochem Inc. (Diggers TM) (including confidential email on costs)	<ul style="list-style-type: none"> • Opposes Options 3 & 4: Supply for use in devices accounts for less than [C-I-C]% of total fuel sales. Fitting flame arresters would increase production costs by [C-I-C] times (e.g. for 1L bottles, costs would rise from \$[C-I-C] to \$[C-I-C]. The total cost of fitting flame arresters in the first year of production would be approximately \$[C-I-C]. • Supports Option 2 as would address risk posed by devices.

Government organisation	
Government organisation (confidential)	<ul style="list-style-type: none"> Prefers Option 2 (clarified by email).
New Zealand Fire Service	<ul style="list-style-type: none"> Supports standard that includes: a reasonable minimum requirement to resist overturn from impact; fuel reservoir capacity; ability to extinguish when required; ability to safely refuel or refuel without risking premature ignition or ignition of residual vapours.

The ACCC also obtained expert advice from Dohrmann Consulting, a technical expert in mechanical engineering, ergonomics and fire safety. Dohrmann Consulting provided its final expert report on 13 June 2017.

In addition, the ACCC contacted all parties and State and Territory regulators, on 30 May 2017, to seek views on the stability test proposed by Dohrmann Consulting. The responses received are discussed in section 10.

8. Is further government action needed?

Impact of injuries and house fires

As mentioned in section 3, since 2010, there have been at least 105 injuries and 36 house fires in Australia involving decorative alcohol fuelled devices – an average of 15 injuries and 5 house fires a year.

The impact of these injuries and house fires is estimated to be at least **\$14.3 million to \$27.2 million per annum**.

Injuries

OBPR guidance on how to treat the benefits of regulations designed to reduce the risk of physical harm, uses an estimate of \$4.2 million (2014) based on empirical evidence for the value of a statistical life.¹⁹ Escalated to December 2016 dollars, this figure becomes \$4.3 million.

According to the Australian Institute of Health and Welfare report, *The Burden of Disease and Injury in Australia*, the disability weight (weight factor assigned to severity of an injury) for burns measuring 20 per cent to over 60 per cent of total body surface area, ranges from 0.2 to 0.4.²⁰ Escalated to December 2016 dollars, this range becomes \$860,000 to \$1.72 million per individual.

Medical costs

The cost to individuals and Australia's health care system is difficult to estimate. The ACCC received an estimate for one individual, who had suffered over 50 per cent burns to their

¹⁹ Department of Prime Minister and Cabinet, Office of Best Practice Regulation, Best Practice Regulation Guidance Note Value of statistical life, December 2014, Viewed 30 March 2017, www.dpmc.gov.au/sites/default/files/publications/Value_of_Statistical_Life_guidance_note.pdf

²⁰ Weights are measured as a number on a scale of 0 to 1, where 0 is assigned to a state comparable to death and 1 is assigned to a state of ideal health. Australian Institute of Health and Welfare, *The Burden of Disease and Injury in Australia*, AIHW, Canberra, 1999, viewed 31 March 2017, www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442459196

body involving a decorative alcohol fuelled device (table top device) in 2014, of \$100,000 for the out of pocket cost of a skin like dressing.²¹

Ahn and Maitz conducted a retrospective review of 20 adult burn patients who were treated in 2008.²² The total costs varied considerably, highlighting the difficulty in estimating future hypothetical costs. The costs assessed related to burns ranging from 1.5 per cent to 62 per cent of total body surface area. Treatment cost ranged from \$13,000 to \$467,000. The average treatment cost for this study was \$71,056. Escalated to December 2016 dollars, this figure becomes \$84,000.

Property damage

In terms of property damage from fire, statistics provided by NSW Fire and Rescue for the 2006/07 year indicate that the average dollar loss per residential fire was \$26,784.²³ Escalated to December 2016 dollars, the property damage from fire becomes \$32,700 per house fire.

Estimated impact of 15 injuries and 5 house fires a year involving decorative alcohol fuelled devices

- 105 injuries and 36 properties damaged in 2010-2017
- Average 15 injuries and 5 house fires a year (assuming there are a similar number of device users and injuries and house fires each year)
- Value of a statistical life \$860,000 to \$1.72 million x 15 injuries = \$12.9 million to \$25.8 million per annum
- Value of medical costs \$84,000 x 15 injuries = \$1.26 million per annum
- Value of property damage \$32,700 x 5 house fires = \$163,500 per annum

Total cost of injuries and house fires from decorative alcohol fuelled devices: **\$14.3 million to \$27.2 million per annum.**

These figures are only a rough estimate of the cost of injuries and fire damage from decorative alcohol fuelled devices. The figures are likely to be a significant underestimate because they:

- Reflect only injuries and house fires that the ACCC is aware of.
- Do not take into account broader factors such as social impacts, economic impacts, and the financial impact on suppliers of safe decorative alcohol fuelled devices from the likely decline in consumer and retailer confidence in the industry.

Need for further government action

As mentioned in section 4, product safety regulation is intended to address the difficulty that consumers have in assessing the safety of a product (information asymmetry), and the impact that a product may have on other parties such as bystanders or the health care system (negative externalities).

As discussed in section 9 below, in relation to decorative alcohol fuelled devices, all parties have argued for further government action after the national interim ban expires.

²¹ Direct information from relative of patient who suffered severe burns from an alcohol fuelled device, received 6 February 2017.

²² C.S Ahn and P. K.M Maitz, 'The True Cost of Burn' (2012) 38 *Burns* 967-974.

²³ NSW Fire and Rescue, Annual Statistic Reports for 2006/07, viewed 30 March 2017, www.fire.nsw.gov.au/page.php?id=171

However, the ACCC also notes that the need for government action may change in the future depending on:

- The development of a voluntary Australian standard. The ACCC is aware that some suppliers (including The Fire Company and a device supplier (confidential) are considering making a project proposal submission to Standards Australia for the development of a voluntary Australian standard for decorative alcohol fuelled devices. Should a voluntary Australian standard be developed, it could also be adopted (all or part) in a mandatory safety standard for decorative alcohol fuelled devices.
- Whether device suppliers voluntarily improve the safety of devices and recall unsafe devices.

As discussed in section 12 below, if the Minister makes a safety standard for decorative alcohol fuelled devices, the ACCC will monitor the progress of voluntary recalls, compliance by device suppliers with the standard,²⁴ further reports of injuries and house fires, and the processes for revising the European and US standards and for Standards Australia.

9. Detailed policy options

In this section 9, each of the five policy options has been considered against the legislative tests in the ACL as outlined in section 4 above. Where possible, the quantifiable net cost-benefit of the options has also been assessed. Attachment A provides further detail on how these figures were derived and identifies costs and benefits which cannot be reliably quantified in this process.

Option 1 – No further action once the national interim ban ends

Description

Under this option, there would be no additional government action once the national interim ban expires. Device suppliers would still need to comply with the statutory consumer guarantees in the ACL as discussed in section 4 above. Suppliers of methylated spirits containers would also need to continue to comply with the Poisons Standard as discussed in section 5 above.

Benefits

Under Option 1, consumer choice would not be restricted. Those suppliers of decorative alcohol fuelled devices that stopped selling after the national interim ban was imposed could restart supply, and there would be no additional compliance costs. The lack of regulatory constraints could encourage innovation and competition including by new entrants to the market.

The ACCC has not been able to quantitatively estimate the benefits of Option 1. There is also no data on the total value of the decorative alcohol fuelled devices market in Australia. However, the total value recorded by importers of all devices imported into Australia from 1 June 2012 to 30 June 2016 was approximately \$5.7 million (\$1.4 million per annum).

Costs

As discussed in section 8 above, Option 1 is likely to result in the continuation of about 15 injuries and 5 house fires every year from decorative alcohol fuelled devices, with a cost of

²⁴ The ACCC, along with State regulators, has been monitoring compliance with the national interim ban. However, the ACCC notes the submission by Ambience Eco Fires that non-complying devices are still available on eBay.

at least \$14.3 million to \$27.2 million per annum. The figures are likely to be a significant underestimate because they:

- Reflect only injuries and house fires that the ACCC is aware of.
- Do not take into account broader factors such as social impacts, economic impacts, and the financial impact on suppliers of safe decorative alcohol fuelled devices from the likely decline in consumer and retailer confidence in the industry.

Net benefit

The ACCC did not receive any submissions in support of Option 1. This option would result in a net cost. Although the benefits of Option 1 cannot be quantified, the total cost of injuries and house fires from decorative alcohol fuelled devices of \$14.3 million to \$27.2 million per annum can be contrasted to the size of the industry in Australia. Although the total value of retail sales is not available, the total value recorded by importers of all devices imported into Australia is approximately \$1.4 million per annum.

Option 2 – Make a mandatory safety standard for decorative alcohol fuelled devices

Description

Under section 104 of the ACL, the Commonwealth Minister may make a safety standard setting out requirements that are reasonably necessary to prevent or reduce risk of injury. The ACCC and other ACL product safety regulators may take action against a supplier who breaches a safety standard. A pecuniary penalty may be imposed for a contravention.

The consultation paper sought comment on whether a mandatory safety standard should have the same scope and effect as the current national interim ban. As further discussed in section 10 below, the main issue raised in submissions was the specifications in a safety standard.

The following cost-benefit analysis is based on the ACCC's recommended safety standard, which would allow the supply of decorative alcohol fuelled devices (that is, devices that are not primarily used for food warming) provided that they:

- are a permanent fixture or they have a dry weight of at least 8 kilograms and a footprint of at least 900 square centimetres;
- meet the stability test set out in the European standard; and
- come with a fuel container with a flame arrester or an automatic fuel pump system – and have the prescribed warning.

The recommendation includes a 3 month transition period. The safety standard would commence on 15 October 2017 but allow device suppliers the option of complying with the specifications in the national interim ban from 15 July to 14 October 2017.

The safety standard would make the following changes to the national interim ban:

- Devices with a power output greater than 4.5 kW are no longer exempt.
- Devices must comply with the stability test specified in the European standard (which is adopted in other countries such as Germany).

- Fixed devices and devices with a removable fuel tank – like devices without a removable fuel tank – have to be supplied with a fuel container with a flame arrester.
- Device suppliers may supply an automatic fuel pump instead of a fuel container with a flame arrester.
- The wording of the warnings is revised to reflect these changes and to refer to deaths.

Benefits

Option 2 is likely to reduce serious injuries and property damage from decorative alcohol devices by preventing table top devices²⁵ and requiring fixed and freestanding devices to meet safety requirements (flame arrester/fuel pump and warning).

As outlined in section 3, of the 105 injuries since 2010, the device is identified for 56 injuries. Of these 56 injuries, 45 relate to table top devices, five relate to freestanding devices and six relate to fixed devices. Of the 36 house fires since 2010, the device is identified for 16 house fires. Of these 16 house fires, six relate to table top devices, six relate to freestanding devices and four relate to fixed devices.

The cost of injuries and property damage from the 45 injuries and 6 house fires involving table top devices (an average of 6 injuries and 0.9 properties damaged each year) is estimated to be at least **\$5.7 million to \$10.9 million per annum** (Attachment A). This estimate is likely to be a significant underestimate of the benefits of Option 2 because the figures:

- Reflect only injuries and house fires that the ACCC is aware of – and where the type of device has been identified.
- Only include reported injuries and house fires from table top devices. The figures do not include the broader reduction in risk for freestanding and fixed devices under Option 2.
- Do not take into account broader benefits such as the reduction in social harm and economic harm.
- Do not take into account the likelihood of increased sales for businesses from increasing consumer confidence in the safety of these devices.

However, the estimated benefit is based on the assumption that, as discussed in section 12 below, unsafe table top devices that were sold prior to the safety standard commencing are recalled (either as a voluntary recall or a compulsory recall under the ACL).

Out of the eleven submissions, a safety standard applying to decorative alcohol fuelled devices was supported by six parties: The Fire Company, device supplier (confidential), Fires, Ambience Eco Fires, Recochem Inc. (Diggers TM), Government organisation (confidential) and New Zealand Fire Service. In discussing the benefits of a safety standard applying to decorative alcohol fuelled devices, suppliers referred to the financial impact from the drop in sales due to customer fear and confusion over the national interim ban. In particular, The Fire Company was concerned that there had been a lack of response to its calls for government action, and that, if this continued, it would destroy the ethanol fire industry.

²⁵ Note that a table top device would be permitted if it has a dry weight of at least 8kg and a footprint of at least 900cm², satisfies the stability test in the European standard, and is supplied with a flame arrester/fuel pump and the required warning. The issue of specifications is discussed in section 10.

Costs

Attachment A identifies the following estimated costs of the recommended safety standard for decorative alcohol fuelled devices:

- Reduced range of devices that suppliers can sell (plus the cost of testing to determine whether a device meets the stability test).
- Additional costs on suppliers of fixed and freestanding devices from the provision of a fuel container with flame arrester (or fuel pump) and warning.
- These costs on business may in turn result in consumer detriment from less choice and a likely increase in the price of decorative alcohol fuelled devices.
- A possible reduction in competition due to device suppliers (particularly smaller suppliers) being forced out of the market because of the costs associated with compliance, or because the specifications in a safety standard benefited some businesses over others.
- Inconsistency between Australian and international standards in relation to the wording of the warnings.

Attachment B estimates the average annual regulatory costs to business under Option 2.

The option of a safety standard applying to decorative alcohol fuelled devices was not supported by three parties:²⁶

- one device supplier (confidential) who preferred Option 3; and
- one consumer and one device supplier (confidential) who preferred Option 5 (a permanent ban) as it would send a stronger message than a safety standard.

The ACCC has not been able to obtain data on the value of devices that would be excluded, nor the additional business costs imposed under Option 2. Only one device supplier (confidential) preferred Option 3 instead of a safety standard applying to decorative alcohol fuelled devices. As this supplier sells devices at the higher end of the market, no data was provided on the financial impact of Option 2. However, the estimated benefit of Option 2 of \$5.7 million to \$10.9 million per annum can be compared to the total value recorded by importers of table top devices into Australia from 1 July 2012 to 30 June 2016, which would be impacted by the proposed safety standard, of approximately \$4.2 million (\$1.05 million per annum).

Net Benefits

The option of a mandatory safety standard applying to decorative alcohol fuelled devices is likely to result in a significant reduction in the number of serious injuries to consumers and to property damage. The benefit is estimated to be at least \$5.7 million to \$10.9 million per annum. Although the ACCC has not been able to estimate the costs of this option, the benefit can be compared to the value of devices imported into Australia, which would be impacted by the proposed safety standard, of \$1.05 million per annum.

²⁶ In relation to the remaining two submissions: One party (Solair Pty Ltd) referred to the need for education. One party (device supplier) referred to the need for government action.

Option 3 – Make a mandatory safety standard that requires all containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester

Description

As outlined in section 5, under the Poisons Standard, containers for methylated spirits, when packed and labelled as a biofuel suitable for use in spirit burners, must include the following statement: 'WARNING: Do not attempt to refill burner while it is in use or still warm; it could lead to serious burn injury'.

Option 3 proposes an additional safety standard requiring all suppliers of ethanol fuel in containers having a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to include a flame arrester to be fixed to the neck of the fuel container before being supplied to consumers. Under Option 3, there would be no additional requirements on the design of decorative alcohol fuelled devices.

Benefits

Option 3 is likely to reduce serious injuries and property damage from refuelling decorative alcohol fuelled devices.

As outlined in section 3, of the 105 injuries since 2010, the device is identified for 56 injuries. Of the 45 injuries relating to table top devices, 28 occurred when the device was being refilled or had just been refilled.

Of the 36 house fires since 2010, the device is identified for 16 house fires. Of the six house fires relating to table top devices, three relate to refilling.

The cost of injuries and property damage from the 28 injuries and 3 house fires involving refuelling table top devices (an average of 4 injuries and 0.4 properties damaged each year) is estimated to be at least **\$3.7 million to \$7.2 million per annum** (Attachment A). This estimate is likely to be a significant underestimate of the benefits of Option 3 because the figures:

- Reflect only injuries and house fires that the ACCC is aware of – and where the type of device and the cause of the incident have been identified.
- Only include reported injuries and house fires from refuelling table top devices. The figures do not include the broader reduction in risk for freestanding and fixed devices under Option 3.
- Do not take into account broader benefits such as the reduction in social harm and economic harm.

One device supplier (confidential) supported this option, although the following parties also supported the flame arrester requirement: The Fire Company and two device suppliers (confidential). In particular, The Fire Company submitted that fuel suppliers know that their product is purchased for devices that produce a flame, and should be required to change their product packing to address the risk of flashback. The Fire Company also referred to similar US requirements.

The Fire Company and two device suppliers (confidential) also suggested alternative specifications for a safety standard for fuel suppliers.

Costs

Recochem Inc. (Diggers TM) was the only methylated spirits supplier to make a submission. Recochem submitted that, while the addition of warnings on a label are relatively easy to adopt and are low cost, the requirement to include a flame arrester in the packaging would make the product economically unviable.

Recochem noted that only a very small percentage of their product is used by consumers for decorative alcohol fuelled devices – less than [C-I-C]% of their total sales. Recochem provided evidence on the increased costs associated with fitting flame arresters to their products. Recochem stated that they had received expert advice estimating that a flame arrester standard would increase production costs by [C-I-C] times above current costs (e.g. for 1L bottles, costs would rise from \$[C-I-C] to \$[C-I-C] (an additional \$[C-I-C]). They also estimated that the total cost of fitting flame arresters in the first year of production would be approximately \$[C-I-C]. Recochem stated that this increased cost would make the product cost prohibitive to the average consumer who uses methylated spirits for cleaning. This in turn would result in reduced sales, brand damage and job losses.

Attachment B estimates the average annual regulatory costs to business under Option 3.

Net Benefits

While Option 3 is likely to result in a reduction in the number of injuries and property damage from refuelling table top devices, the benefit of Option 3 is less than Option 2 as it does not address other hazards such as a device being knocked over while lit, causing burning fuel to spread. The benefit is likely to be outweighed by the additional cost on fuel suppliers.

Option 4 – Make a mandatory safety standard that combines Options 2 and 3

Description

This option would combine the safety requirements outlined under Options 2 and 3.

Benefits

One device supplier, The Fire Company, supported the option of two safety standards that apply to decorative alcohol fuelled devices and fuel suppliers.

As set out for Option 2, of the 56 injuries since 2010 where the device is identified, 45 injuries involve table top devices (average 6 injuries a year). Of the 16 house fires since 2010 where the device is identified, 6 relate to table top devices (average 0.9 house fires a year). The impact of these injuries and house fires from table top devices is estimated to be \$5.7 million to \$10.9 million per annum (Attachment A).

Option 4 may provide additional benefits to Option 2 if:

- The assumption in Option 2 that unsafe table top devices that were sold prior to the safety standard commencing will be recalled is incorrect.
- Under Option 2, customers who have a fixed or freestanding device (which must be supplied with a flame arrester or fuel pump) ignore the warning on their device, and use a methylated spirits container without a flame arrester.

Costs

This option would impose additional compliance costs on suppliers of decorative alcohol fuelled devices and on those who supply ethanol fuel. The additional cost on fuel suppliers is discussed under Option 3.

Attachment B estimates the average annual regulatory costs to business under Option 4.

Net benefits

The net benefit of Option 4 is likely to be less than Option 2. Mandating safety requirements for both the device and the fuel container should provide greater benefits than Option 2 alone. However, the additional benefits are unlikely to be significant as Option 2 (as amended in this Decision RIS) would already require all devices to be supplied with a fuel container (which customers can use to decant fuel) with a flame arrester (or an automatic fuel pump system). Against this, the cost of Option 4 is likely to be significantly greater than the cost of Option 2 due to the impact on fuel suppliers as discussed in respect of Option 3.

Option 5 – Make a permanent ban on table top devices

Description

Under Option 5, all table top devices would be permanently banned from supply in Australia. Unlike an interim ban that is in force for a specified period, a permanent ban continues in force until the Commonwealth Minister revokes it.

Benefits

The benefits of Option 5 are estimated to be the same as for Option 2 as a permanent ban could be drafted to have the same impact, in practice, as a safety standard on the types of decorative alcohol fuelled devices supplied in Australia (Attachment A).

However, the benefits may potentially be greater if a permanent ban results in a higher level of recalls of unsafe devices. One consumer and one device supplier (confidential) preferred a permanent ban over a safety standard as it would send a stronger message than a safety standard.

Against this, the ACCC sees the option of a mandatory safety standard as more likely to facilitate a process by which device suppliers and Standards Australia develop a voluntary Australian standard with more detailed specifications for decorative alcohol fuelled devices to protect consumers.

Costs

The costs of Option 5 are likely to be greater than Option 2 due to the impact that a permanent ban has on the reputation of an industry. Six device suppliers (Solair Pty Ltd; The Fire Company; Ambience Eco Fires; and three device suppliers (confidential)) raised concerns over the impact that the process of the national interim ban has had on the reputation and sales of safe products by their businesses.

Attachment B estimates the average annual regulatory costs to business under Option 5.

Net benefit

Option 5, although it can be drafted to have the same effect as Option 2, is estimated to have a lower net benefit than Option 2 due to the impact on the reputation of suppliers of safe devices and the Standards Australia process.

10. Option 2: Safety standard specifications

As discussed in section 9, the main issue raised in submissions was the specifications in the national interim ban.

Five device suppliers and one fuel supplier suggested alternative specifications to the national interim ban (Table 4).

Table 4: Summary of stakeholder feedback on specifications

Device supplier (confidential)	<ul style="list-style-type: none"> Defines table top devices: Weight 5kg; length 20cm; width 20cm; height 35cm Its devices, which it supplies with an automatic electric fuel pump, provide a higher level of safety for consumers than a fuel container with a flame arrester.
Ambience Eco Fires	<ul style="list-style-type: none"> Remove the kilowatt test as this bears no relevance to safety. Weight greater than 7kg; length greater than 30cm; width greater than 30cm; and fuel capacity greater than 1 litre. Require devices to demonstrate some form of international certification until an Australian standard is developed. Include a requirement to have safety symbols etched on the devices to reduce issues when refuelling. Include a requirement for devices to have a lid, plates or a mechanism to turn the appliance safely off.
The Fire Company	<ul style="list-style-type: none"> Hazards relate to refilling and tipping. Refilling can be addressed by a flame arrester and the burn time (efficiency) of a device. Should look at burn time (capacity and efficiency of burner) instead of weight/footprint. The output of 4.5kW is irrelevant as the devices are primarily not designed for heating, but are decorative. Tipping is related to footprint and centre of gravity. This is addressed by the weight/footprint in the national interim ban, and a tipping test in the international standards. Proposed a safety standard similar to the approach of the EN standard in that it sets out requirements according to the type of appliance (fixed, freestanding or table top). For example, the requirements include a stability test covering (depending on the device) tilting and sliding, moving from impact, tilting from impact, stress and spillage. The requirements draw upon both the EN standard and the UL standard. In the proposed safety standard: Defines table top devices as having a footprint of less than 900 square centimetres, dry weight of 8kg or less, and fuel capacity of 2.5 litres or less. The warning in the national interim ban is manageable in its current form, and should remain in place.
Device supplier (confidential)	<ul style="list-style-type: none"> No changes should be made to the requirements in the national interim ban The labelling directives in the European standard adequately

	<p>inform consumers</p> <ul style="list-style-type: none"> • Flame arresters would reduce the risk of incidents • 4.5kW has no bearing on safety
Recochem Inc. (Diggers TM)	<ul style="list-style-type: none"> • Instruction manuals for spirit burners (where products are manufactured offshore) are written in poor English that is difficult to understand.
Device supplier (confidential)	<ul style="list-style-type: none"> • A fuel arrester for refuelling funnel would reduce the risk of incidents

In addition, three device suppliers (Ambience Eco Fires, device supplier (confidential) and The Fire Company) raised concerns that the specifications in the State and Territory interim bans and the national interim ban were broad and inadvertently captured a number of smaller 'portable' devices causing reputational damage, lost sales and increased enquiries from confused consumers. For example, The Fire Company submitted that a small percentage of their collection is not compliant as the definition is incomplete and open to interpretation (i.e. is a model that is under 900 square centimetres that can be fixed to a permanent position considered freestanding or fixed?).

In contrast, one device supplier (confidential) submitted that changing the parameters of the national interim ban would see greater confusion in the market. Implementing Option 2 without amendment would provide the time needed for the device supplier and others to apply to Standards Australia for the development of a voluntary Australian standard.

In response to the submissions, the ACCC sought further advice from Dohrmann Consulting. The expert advised on 29 May 2017 that:

- Consistent with supplier submissions, the risk of accidental ignition is not addressed by a maximum power output.
- Weight and footprint alone do not define either the centre of gravity or stability of an object. For example, a table top device could pass the 8 kilograms 900 square centimetres criteria, but be fitted with long, spider-like legs that lifted most of the weight and made it top-heavy. In addition to the weight/footprint test in the national interim ban, it is essential that devices be required to meet a stability test. The report proposed the following test: 'With the device placed on a flat, horizontal surface, a horizontal force of 200 Newton (about 20kg – see UL 1470) is applied at the middle of the topmost point of its longest side. The device shall not lift at any of its base points of support'.
- In respect of the proposed burn time test (burner capacity of 1.7L with a burn time of minimum 6 hours), the specifications would require validation and testing. The larger storage volumes also come with an increased risk.
- Requiring a flame arrester even if the device requires the fuel tank to be removed from the device for refilling, would further reduce the risk of ignition. This would add to the cost of the device although one particular design for a flame arrester costs less than \$10.
- To address flame and vapour ignition risk, additional controls are needed to ensure that no refilling is possible while any flame is alight.
 - For multiple flames – one out, all out;
 - No refilling possible while any flame is alight;
 - No refilling possible – or replacement of removable tanks – while any surface is at 60C or more (a simple thermal interlock can deal with this);
 - Automatic extinguishing of all flames if the device tilts more than 20 degrees;

- Instructions would need to be fixed to the device in an easily visible location, and a clear, illustrated and durable set of instructions supplied.

Given concerns in the submissions over the impact of changing the specifications in the national interim ban, the ACCC, on 30 May 2017, contacted the parties who had made submissions, along with State and Territory regulators, to seek views on the stability test recommended by Dohrmann Consulting. Table 5 provides a summary of views from the seven parties who made a submission.

Table 5: Stability test – summary of submissions

Ambience Eco Fires	<ul style="list-style-type: none"> • Standard should require devices to have international certification until an Australian standard is developed • Devices already comply with the stability test in the German standard DIN 4734-1:2011-01 • Do not support the stability test recommended by Dohrmann Consulting
Device supplier (confidential)	<ul style="list-style-type: none"> • Mandatory standard should not change the national interim ban – a stability test should be developed as part of the voluntary standard process • Do not support the stability test recommended by Dohrmann Consulting: Query how the numbers and parameters for the test were derived • The test has no foundation of stability or safety and is inconsistent with the European standard and other international standards, which apply a force of 2.2kg
Device supplier (confidential)	<ul style="list-style-type: none"> • Do not support the stability test recommended by Dohrmann Consulting • Devices already comply with the German standard DIN 4734-1:2011-01 and the European standard EN 16647:2015
Department of Commerce WA	<ul style="list-style-type: none"> • Supports additional criteria but raised concerns over the proposed stability test, and its impact on barriers to international trade • The recommended stability test would disadvantage devices with non-slip bases, as they would be more likely to tip from the edge of the base • More unstable devices that have non-grip bases would slide along the flat, horizontal test surface when any amount of sideways force is applied
New Zealand Fire Service	<ul style="list-style-type: none"> • Supports a standard the includes a reasonable minimum requirement to resist overturn from impact • Not in a position to assess the adequacy of the stability test recommended by Dohrmann Consulting. • Test seems straightforward but requires some clarification around how the force is applied i.e. slow push vs. dynamic
Device supplier (confidential)	<ul style="list-style-type: none"> • Supports stability test recommended by Dohrmann Consulting • Notes that it will not prevent people from moving the device while still alight

The Fire Company	<ul style="list-style-type: none"> • Includes a stability test in its proposed standard • Do not support the stability test recommended by Dohrmann Consulting • The test is not practical and requires further clarification • Stability tests already exist in international standards
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The submissions and expert report raised the following issues in respect of the national interim ban:

- (a) should all devices be supplied with a fuel container with a flame arrester – and should this include the option of an automatic fuel pump;
- (b) should the kilowatt specification be deleted;
- (c) should the weight/footprint specifications be revised;
- (d) should a stability test be included;
- (e) should other safety requirements be included; and
- (f) should the wording of the warnings be revised.

These issues are further discussed below.

Fuel container with flame arrester

Under the national interim ban, a device must be supplied with a fuel container with a flame arrester (with warning) if it does not have a removable fuel tank. If the fuel tank is removable, then only a warning is required (setting aside devices that have a power output > 4.5 kW, are a fixture or are used for food warming).

Two parties raised concerns in respect of this requirement:

- A device supplier (confidential) submitted that its devices, which it supplies with an automatic electric fuel pump, provide a higher level of safety for consumers than a fuel container with a flame arrester.
- The Fire Company submitted that, if Option 4 is not adopted, Option 2 should be revised to require all devices to be supplied with a fuel container with a flame arrester. In particular, The Fire Company submitted that the biggest safety issue is refilling. To fix the refilling issue, fuel suppliers must fix the fuel bottle by including a flame arrester to address the risk of flashback.

Flame arresters were also supported by two device suppliers (confidential).

In response to these submissions, the ACCC sought technical advice from Dohrmann Consulting. The consultant advised:

- A properly-designed flame arrester on a fuel container will prevent the advance of a flame front in the event of ignition of vapour around the container or at its opening point (although it does not address the issue of spillage or transfer of fuel close to hot surfaces).
- Requiring a flame arrester even if the device requires the fuel tank to be removed from the device for refilling, would further reduce the risk of ignition of vapours inside the storage tank.
- This would add to the cost of the device although one particular design for a flame arrester costs less than \$10.

- Other than flame arresters, there are alternative designs to prevent flash fires when refuelling. This includes the automatic fuel pump.
- To address flame and vapour ignition risk, additional controls would be needed to ensure that no refilling is possible while any flame is alight.

In light of this, the safety standard for devices recommended by the ACCC:

- recognises that an automatic fuel pump system is an alternative to a fuel container with a flame arrester; and
- extends the national interim ban by applying, to all devices (fixed and freestanding) a requirement to be supplied with a fuel container with a flame arrester (or an automatic fuel pump system).

The proposed safety standard has been drafted to allow device suppliers the option of supplying specifically marketed fuel fitted with flame arrester or a jerry can/dispensing nozzle with flame arrester.²⁷

The ACCC recognises that this approach raises two concerns:

- Along with an automatic fuel pump system, there may be other designs that address the risks from refuelling – mandating a particular mechanism is likely to deter innovation.
- The recommended safety standard does not address the additional requirement recommended by Dohrmann Consulting to prevent refuelling when the flame is alight (or the device is too hot).

These types of issues are addressed in the detailed European standard, and in the standard proposed by The Fire Company, and should be considered as part of the Standards Australia process.

Kilowatt specification

Given the technical expert advice and submissions by device suppliers that power output is irrelevant, the recommended safety standard does not include the provision in the national interim ban that would allow devices to be supplied, without any further requirements, where the power output is greater than 4.5 kW.

Weight/footprint and stability test

Two parties raised the issue of the weight/footprint specifications:

- A device supplier (confidential) defined table top devices: Weight 5kg; length 20cm; width 20cm; height 35cm.
- Ambience Eco Fires submitted that the weight should be greater than 7kg; length greater than 30cm; width greater than 30cm; and fuel capacity greater than 1 litre.

In contrast, two parties supported the specifications in the national interim ban:

- The Fire Company defined table top devices as having a footprint of less than 900 cm², dry weight of 8kg or less (and fuel capacity of 2.5 litres or less).²⁸

²⁷ The proposed safety standard does not require the fuel container to be refillable, but the ACCC would expect device suppliers to put in place an arrangement that facilitates the ongoing use of a flame arrester by their customers. Although this issue was not raised in submissions, the ACCC recognises that the requirement for a flame arrester may be more difficult to adapt to the less common gel form of fuel. This type of issue could be addressed in the Standards Australia process.

²⁸ In relation to The Fire Company's query as to whether a model that is under 900cm² that can be fixed to a permanent position is considered a fixture, this will depend on the particular facts such as the likelihood that a customer will actually

- A device supplier (confidential) submitted that no change should be made to the specifications (apart from the 4.5 kW test).

Dohrmann Consulting also advised that, in addition to the weight/footprint specifications in the national interim ban, a stability test is essential.

As outlined in Table 5 above, in response to the stability test proposed by Dohrmann Consulting:

- One party (device supplier (confidential)) supported the test.
- Four parties (Ambience Eco Fires; two device suppliers (confidential); and The Fire Company) referred to tests in international standards.
- One party (Department of Commerce WA) supported additional criteria but raised concerns over the proposed stability test, and its impact on barriers to international trade.
- One party (New Zealand Fire Service) supported some form of stability test.

Given the preference of parties for a stability test consistent with the international standard and the time available for this current process, the safety standard recommended by the ACCC requires devices to meet the stability test in the European standard. The standard does not revise the weight and footprint specifications to permit more devices.

The ACCC recognises that this approach raises two concerns:

- The ACCC has confirmed that at least one laboratory in Australia has the capacity to test devices against the stability test in the European standard. However, as outlined in section 6, the scope of the EN standard differs from the proposed mandatory Australian standard. In particular, the EN standard does not apply to devices that: are for use outdoors; have power output greater than 4.5 kW; and have a fuel tank that is separate from the appliance. A potential issue is whether the European standard stability test can still be sensibly applied in all of these cases.
- The European standard permits table top devices provided that the devices meet highly detailed requirements. As discussed further below, the ACCC supports the development of such a standard through the Standards Australia process. This would also address the concerns raised by Ambience Eco Fires and a device supplier (confidential) that the 8 kg / 900 cm² test prevents them from supplying safe devices.

Other safety requirements

The safety standard recommended by the ACCC does not propose additional tests such as a burn test, mechanisms to turn the appliance off, instruction manuals and other provisions in the international standards. The ACCC agrees with both Dohrmann Consulting and The Fire Company that such requirements are desirable, but accepts the submission by a device supplier (confidential) that the current process is not appropriate for developing a detailed standard. In particular, the ACCC notes that the European standard is to be reviewed following the European Commission Decision, the US is developing a standard for portable devices, and that device suppliers in Australia are proposing to apply to Standards Australia for the development of a voluntary Australian standard.

install the device as a fixture. The ACCC also notes that the submission from the New Zealand Fire Service refers to the need for an installation standard.

Warnings

The national interim ban requires the following warnings for devices that meet the weight/footprint test:

For a device that has a removable fuel tank:

WARNING

Filling an alcohol fuelled device while lit has caused severe burns.

You must remove the fuel tank from the device before refilling.

When refilling first check the flame is extinguished and that the device is cool.

For a device that does not have a removable fuel tank (and must be supplied with a fuel container with flame arrester).²⁹

WARNING

Filling an alcohol fuelled device while lit has caused severe burns.

When refilling only use containers with a flame arrester.

When refilling first check the flame is extinguished and that the device is cool.

Five parties referred to the warning in their submissions:

- The Fire Company submitted that, although the warning in the national interim ban is unique, the warning strengthens The Fire Company's safety messages and does not confuse its customers. The warning is manageable in its current form, and should remain in place.
- A device supplier (confidential) submitted that no changes should be made to the requirements in the national interim ban. However, the submission also noted that the labelling directives in the European standard adequately inform consumers. About 15 per cent of product already sold in the market would not have the labelling as specified in the national interim ban. The labelling is as required in the European standard.
- Ambience Eco Fires submitted that fire safety symbols should be etched on the devices. In particular, Ambience Eco Fires noted that not everyone in Australia reads or speaks English.
- Solair Pty Ltd referred to the need for more information, and labels on units.
- Recochem Inc raised concerns over the instruction manuals for spirit burners which are often written in poor English.

Dohrmann Consulting also advised on the need for clear directions and warnings.

The safety standard recommended by the ACCC makes the following changes to the national interim ban.

²⁹ The national interim ban uses the word 'arrestor;' whereas the recommended safety standard uses the word 'arrester' consistent with the Australian Government's guidance. However, the transitional provisions in the recommended safety standard retain the word 'arrestor' as part of the transition from the national interim ban. In any event, the ACCC does not consider the arrestor/arrester issue relevant to whether a device supplier is in compliance with the safety standard.

For a device that does not have a removable fuel tank and is supplied with a fuel container with a flame arrester: The words 'and deaths' have been added.

WARNING

Filling an alcohol fuelled device while lit has caused severe burns and deaths.

When refilling only use containers with a flame arrester.

When refilling first check the flame is extinguished and that the device is cool.

For a device that does not have a removable fuel tank and is supplied with an automatic fuel pump: The sentence 'When refilling only use containers with a flame arrester' has been deleted.

WARNING

Filling an alcohol fuelled device while lit has caused severe burns and deaths.

When refilling first check the flame is extinguished and that the device is cool.

For a device that has a removable fuel tank and must now be supplied with a fuel container with a flame arrester, the sentence: 'When refilling only use containers with a flame arrester' has been added.³⁰

WARNING

Filling an alcohol fuelled device while lit has caused severe burns and deaths.

You must remove the fuel tank from the device before refilling.

When refilling only use containers with a flame arrester.

When refilling first check the flame is extinguished and that the device is cool.

However, the ACCC also notes that a voluntary Australian standard developed by Standards Australia may permit or require designs other than a flame arrester or automatic fuel pump. If so, the mandatory safety standard may need to contain less prescriptive warnings (such as the symbols in the European standard, as proposed by Ambience Eco Fires and a device supplier (confidential)) and may also include requirements in relation to user manuals.

11. Recommended policy option

The ACCC considers that the option that is likely to provide the greatest benefits to the Australian public is a mandatory safety standard which has the effect of allowing the supply of decorative alcohol fuelled devices (that is, devices which are not primarily used for food warming), provided that they:

³⁰ The prescribed warnings do not cover devices with a removable fuel tank and an automatic fuel pump as the ACCC was advised that such a design is not a realistic possibility.

- are a permanent fixture or they have a dry weight of at least 8 kilograms and a footprint of at least 900 square centimetres; and
- meet the stability test in the European standard; and
- come with the prescribed warning, and a fuel container with a flame arrester or an automatic fuel pump system.

The ACCC considers that such a standard would meet the legislative test in section 104 of the ACL.

12. Implementation

The last day of operation of the national interim ban (as extended by the Minister) is 14 July 2017. This raises two further issues:

- As the requirements of the proposed mandatory safety standard differ from the national interim ban, when should the requirements in the safety standard come into effect?
- Should businesses who have supplied devices that do not comply with the safety standard, be required to undertake a recall of these products?

Transition to safety standard

If the safety standard for devices comes into operation on 15 July 2017, it would impact on:

- Device suppliers who previously did not need to meet any requirements as they met the 4.5 kW power output test.
- Devices that are fixed or freestanding (and with a removable fuel tank) must now be supplied with a flame arrester.
- Devices that are fixed or freestanding must now meet the stability test.
- The warning on all devices.

The ACCC received three submissions relevant to the transitional time required:

- The Fire Company submitted that the process for the interim bans had required it to make changes (including unpacking devices to add a new warning, and then repacking) without adequate warning.
- A device supplier (confidential) submitted that it would take up to 6 months to incorporate a flame arrester.
- Solair Pty Ltd submitted that it would take 4 to 6 months to comply.
- A device supplier (confidential) submitted that 3 months would be a fair implementation period.

However, the ACCC also received evidence from both The Fire Company and Dohrmann Consulting on the benefits to public safety from these additional requirements. Dohrmann Consulting also advised that the development of a flame arrester is not necessarily expensive or difficult. The national interim ban already requires devices without a removable fuel tank, to be supplied with a fuel container with a flame arrester.

After balancing these considerations, the ACCC has drafted the recommended safety standard so that there is a three month transition period. The safety standard commences on 15 July 2017 but allows device suppliers the option of complying with the specifications in the national interim ban from 15 July to 14 October 2017.

Recall of devices

As part of the consultation process, the ACCC sought submissions from device suppliers on:

- how long consumers use a decorative alcohol fuelled device (the turnover of devices); and
- whether the supplier would undertake a voluntary recall of devices that did not comply with the safety standard.

No supplier notified the ACCC that it would undertake a voluntary recall, even though several suppliers described their products as long term investments. However, suppliers also noted that the reason they do not support a recall is that they consider the product to have the appropriate safety features even if the precise wording of the warning differed from the national interim ban.

The ACCC recognises that device suppliers should not be required to undertake a recall simply because the wording of a warning differs (e.g. it complies with the European standard). However, the ACCC is concerned that devices have been supplied which are unsafe for consumers.

The ACCC expects suppliers to meet the consumer guarantees provisions of the ACL and, if the Minister makes the recommended safety standard, to undertake a recall (with a refund to consumers) of unsafe devices that do not meet, substantively, the requirements in the safety standard. The ACCC will continue to monitor this issue to assess whether the option of a compulsory recall is required to remove unsafe decorative alcohol fuelled devices (particularly table top devices).

Review of the proposed safety standard

As discussed in section 10, the requirement for any Ministerial decision to be in place by 14 July 2017 has limited the extent to which the ACCC has been able, in the current process, to assess additional safety requirements to protect consumers such as flame and refilling controls. The ACCC supports the proposal by some device suppliers to apply to Standards Australia for the development of a voluntary standard which would address matters similar to those covered in the European standard.

A mandatory safety standard under section 104 of the ACL can be reviewed at any time. The ACCC will monitor the need for such a review in light of new reports of injuries and house fires, or following the processes for revising the European and US standards and for Standards Australia.

13. Glossary

Term	Definition
ACL	Australian Consumer Law, Schedule 2 of the <i>Competition and Consumer Act 2010</i> .
Automatic fuel pump system	Automatic fuel pump system, for a decorative alcohol fuelled device, means an electronic device that: <ul style="list-style-type: none"> (a) has a fuel hose that plugs into the decorative alcohol fuelled device; and (b) pumps alcohol from a fuel container directly to the fuel tank of the decorative alcohol fuelled device.
European Commission Decision	European Commission Decision (EU) 2015/547. Under European Union law, a decision is a legal instrument, which is binding upon those individuals to which it is addressed.
European standard (also referred to as EN standard)	EN 16647:2015 <i>Fireplace for liquid fuels – Decorative appliances producing a flame using alcohol based or gelatinous fuel – Use in private households</i> A voluntary standard developed by the European Committee for Standardization (CEN).
Flame arrester	In relation to a fuel container, means a device that: <ul style="list-style-type: none"> (a) is fitted securely into the neck of the fuel container; and (b) is designed to absorb heat when exposed to flame, for the purposes of preventing heat or flame entering the fuel container and causing a fire or explosion.
Footprint	The projected area beneath the device when placed on a horizontal surface in its normal operating configuration.
US standard	<i>UL 1370 Standard for safety – Unvented Alcohol Fuel Burning Decorative Appliances</i> A voluntary safety standard developed by Underwriters Laboratories Inc. (UL).

Attachment A: Cost–benefit estimates for each of the options for regulating decorative alcohol fuelled devices

Cost-benefit	Notes	Quantitative estimate where available
Option 1: No further government action once the national interim ban ends		
Benefits		
<ul style="list-style-type: none"> Consumer choice not restricted. No additional compliance costs. Suppliers of decorative alcohol fuelled devices that stopped selling after the national interim ban was imposed could restart supply. Lack of regulatory constraints could encourage innovation and competition including by new entrants to the market. 	<p>The ACCC does not have data to quantitatively estimate these benefits.</p> <p>There is also no data on the total value of the decorative alcohol fuelled devices market in Australia. However, the total value recorded by importers of all devices into Australia from 1 July 2012 to 30 June 2016 was approximately \$5.7 million (\$1.4 million per annum).</p>	Not available
Costs		
<ul style="list-style-type: none"> Serious injuries and property damage from decorative alcohol devices. 	<ul style="list-style-type: none"> 105 injuries and 36 properties damaged in 2010-2017 from decorative alcohol fuelled devices. Average 15 injuries and 5 house fires a year (assumes there are a similar number of device 	\$14.3 million to \$27.2 million per annum

Cost-benefit	Notes	Quantitative estimate where available
	<p>users and incidents in future years).</p> <ul style="list-style-type: none"> • OBPR estimate of the value of a statistical life: \$4.2 million (2014).³¹ Escalated to December 2016 dollars: \$4.3 million. • Australian Institute of Health and Welfare estimate of the weight factor assigned to severity of an injury for burns measuring 20 per cent to over 60 per cent of total body surface area: 0.2 to 0.4.³² Escalated to December 2016 dollars: Range is \$860,000 to \$1.72 million per individual. • Ahn and Maitz estimate of the average treatment cost for burns: \$71,056 (2008).³³ Escalated to December 2016 dollars: \$84,000. • NSW Fire and Rescue estimate of the average dollar loss per residential fire: \$26,784.³⁴ Escalated to December 2016 dollars: \$32,700 per house fire. • Value of a statistical life \$860,000 to \$1.72 million x 15 injuries = \$12.9 million to \$25.8 million per annum. • Value of medical costs \$84,000 x 15 injuries = \$1.26 million per annum. • Value of property damage: \$32,700 x 5 fires = \$163,500 per annum. • Note: This is only a rough estimate of the cost of injuries and fire damage from decorative alcohol fuelled devices. The figures are likely to be a significant underestimate because they: <ul style="list-style-type: none"> ○ Reflect only injuries and house fires that the ACCC is aware of. ○ Do not take into account broader factors such as social impacts and economic impacts. 	
<ul style="list-style-type: none"> • Adverse publicity from injuries impacting on 	The ACCC does not have data to quantitatively estimate this cost.	Not available

³¹ Department of Prime Minister and Cabinet, Office of Best Practice Regulation Best Practice Regulation Guidance Note Value of statistical life, December 2014, Viewed 30 March 2017, www.dpmc.gov.au/sites/default/files/publications/Value_of_Statistical_Life_guidance_note.pdf

³² Weights are measured as a number on a scale of 0 to 1, where 0 is assigned to a state comparable to death and 1 is assigned to a state of ideal health. Australian Institute of Health and Welfare, *The burden of disease and injury in Australia*, AIHW, Canberra, 1999, viewed 31 March 2017, www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442459196

³³ C.S Ahn and P. K.M Maitz, 'The True Cost of Burn' (2012) 38 *Burns* 967-974.

³⁴ NSW Fire and Rescue, Annual Statistic Reports for 2006/07, viewed 30 March 2017, www.fire.nsw.gov.au/page.php?id=171

Cost-benefit	Notes	Quantitative estimate where available
consumer confidence, and the sale of safe devices.		
Net benefit	<p>Option 1 would result in a net cost.</p> <p>The total cost of injuries from decorative alcohol fuelled devices of \$14.3 million to \$27.2 million per annum can be contrasted to the size of the industry in Australia. Although the total value of retail sales is not available, the total value recorded by importers of all devices into Australia is about \$1.4 million per annum. Even if government regulation prevented the supply (and required the recall) of all devices in Australia, the per annum benefit from preventing injuries and house fires is still likely to exceed the value of devices sold each year.</p>	Not available
Option 2 – Make a mandatory safety standard for decorative alcohol fuelled devices		
Benefits		
<ul style="list-style-type: none"> Reduces serious injuries and property damage from decorative alcohol devices by preventing table top devices³⁵ and requiring fixed and freestanding devices to meet safety requirements (flame arrester and warning). 	<ul style="list-style-type: none"> Of the 56 injuries since 2010 where the device is identified, 45 injuries involve table top devices – average 6 injuries a year. Of the 16 house fires since 2010 where the device is identified, 6 relate to table top devices – average 0.9 house fires a year. Value of a statistical life \$860,000 to \$1.72 million x 6 injuries = \$5.16 million to \$10.32 million per annum. Value of medical costs \$84,000 x 6 injuries = \$504,000 per annum. Value of house fires \$32,700 x 0.9 house fires = \$29,430 per annum. This estimate is likely to be a significant underestimate of the benefits of Option 2 because the figures: <ul style="list-style-type: none"> Reflect only injuries and house fires that the ACCC is aware of – and where the type of device has been identified. Only include reported injuries and house fires from table top devices. The figures do 	\$5.7 million to \$10.9 million per annum

³⁵ Note that a table top device would be permitted if it has a dry weight of at least 8kg and a footprint of at least 900cm², satisfies the stability test in the European standard, and is supplied with a flame arrester/fuel pump and the required warning. The issue of specifications is discussed in section 10.

Cost-benefit	Notes	Quantitative estimate where available
	<p>not include the broader reduction in risk for freestanding devices and fixed devices by supplying a fuel container with flame arrester (or pump) and warning.</p> <ul style="list-style-type: none"> ○ Do not take into account broader benefits such as the reduction in social harm and economic harm. ● This estimate assumes: <ul style="list-style-type: none"> ○ Without Option 2, there will be a similar number of device users and incidents in future years. ○ Unsafe table top devices that were sold prior to the safety standard commencing are recalled (either as a voluntary recall or a compulsory recall under the ACL). 	
<ul style="list-style-type: none"> ● Improved consumer confidence leading to resumed sales of safe devices. 	<p>Six device suppliers (Solair Pty Ltd; The Fire Company; Ambience Eco Fires; and three device suppliers (confidential)) raised concerns over the impact that media attention on injuries and the process of the national interim ban had had on the reputation and sales of safe devices by their businesses. Device suppliers such as The Fire Company consider that a safety standard is required to restore consumer confidence in their products. Two device suppliers, Ambience Eco Fires and (confidential) advised that they have suspended their business until the uncertainty is resolved.</p>	Not available
Costs		
<ul style="list-style-type: none"> ● Reduces the range of devices that suppliers can sell (plus cost of testing to determine whether device meets stability test). 	<p>The ACCC does not have data to quantitatively estimate these costs (except for the requirement to provide a flame arrester, which is quantified in Attachment B). However, a comparator would be the total value of table top devices sold in Australia. Although this figure is not available, the total value recorded by importers of table top devices into Australia from 1 July 2012 to 30 June 2016, which would be impacted by the proposed safety standard, was approximately \$4.2 million (\$1.05 million per annum).</p>	Not available
<ul style="list-style-type: none"> ● Imposes additional costs on suppliers of fixed and free standing devices: Provision of fuel container with flame arrester (or fuel pump) and warning labels. 		See Attachment B
<ul style="list-style-type: none"> ● Consumer detriment from 		Not available

Cost-benefit	Notes	Quantitative estimate where available
less choice and a likely increase in the price of decorative alcohol fuelled devices.		
<ul style="list-style-type: none"> Reduction in competition due to suppliers (particularly smaller suppliers) being forced out of the market because of the costs associated with compliance, or because the specifications in a safety standard benefited some businesses over others. 		
<ul style="list-style-type: none"> Inconsistency between Australian and international standards in relation to the wording of the warnings. 		
Net benefit	<p>Option 2 would result in a net benefit.</p> <p>The option of a mandatory safety standard applying to decorative alcohol fuelled devices is likely to result in a significant reduction in the number of serious injuries to consumers and to property damage. The benefit is estimated to be at least \$5.7 million to \$10.9 million per annum. Although the ACCC has not been able to reliably estimate the costs of Option 2, the benefit can be compared to the total value recorded by importers of table top devices into Australia, which would be impacted by the proposed safety standard, of \$1.05 million per annum.</p>	Not available
Option 3 – Make a mandatory safety standard that requires all containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester		
Benefits		
<ul style="list-style-type: none"> Reduces serious injuries and property damage from 	<ul style="list-style-type: none"> Of the 56 injuries since 2010 where the device is identified, 45 injuries involve table top devices. Of these 45 injuries, 28 occurred when the devices were being refilled or had just 	\$3.7 million to 7.2 million per annum

Cost-benefit	Notes	Quantitative estimate where available
<p>refuelling decorative alcohol devices by requiring the fuel container to have a flame arrester.</p>	<p>been refilled – average 4 injuries a year.</p> <ul style="list-style-type: none"> • Of the 16 house fires since 2010 where the device is identified, 6 relate to table top devices. Of these, 3 incidents relate to refilling the table top device – average 0.4 house fires a year. • Value of a statistical life \$860,000 to \$1.72 million x 4 injuries = \$3.4 million to \$6.88 million per annum • Value of medical costs \$84,000 x 4 injuries = \$336,000 per annum • Value of house fires \$32,700 x 0.4 house fires = \$13,080 per annum • This estimate is likely to be a significant underestimate of the benefits of Option 3 because the figures: <ul style="list-style-type: none"> ○ Reflect only injuries and house fires that the ACCC is aware of – and where the type of device and the cause of the incident have been identified. ○ Only include reported injuries and house fires from refuelling table top devices. The figures do not include the broader reduction in risk for freestanding devices and fixed devices under Option 3. ○ Do not take into account broader benefits such as the reduction in social harm and economic harm. <p>Note: The benefits of Option 3 are less than the benefits of Option 2 as the injuries and house fires from refuelling table top devices (which are used to estimate the benefit of Option 3) are a subset of the 45 injuries and 6 house fires involving table top devices (used to estimate the benefit of Option 2).</p> <p>Assumption: Table top devices are refilled using ethanol fuel in containers having a capacity of 5 litres or less which are packed and labelled as a biofuel suitable for use in spirit burners.</p>	
Costs		
<ul style="list-style-type: none"> • The requirement to have a flame arrester imposes additional costs on suppliers of containers of 	<ul style="list-style-type: none"> • Recochem Inc. (Diggers TM) estimates for 1L bottles, production costs would rise from \$[C-I-C] to \$[C-I-C] per annum (an additional \$[C-I-C]). They also estimate that the total cost of fitting flame arresters in the first year of production would be \$[C-I-C]. 	<p>\$[C-I-C] per annum</p>

Cost-benefit	Notes	Quantitative estimate where available
<p>ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners.</p>	<ul style="list-style-type: none"> • The ACCC has used the estimate of \$[C-I-C] per annum. However, this estimate is likely to be a significant underestimate of the costs of Option 3 because the figures do not take into account: <ul style="list-style-type: none"> ○ [C-I-C] ○ The impact of lost sales of methylated spirits for other purposes. Less than [C-I-C]% of Recochem’s total sales is used by consumers for decorative alcohol fuelled devices. Recochem submitted that a flame arrester would increase production costs by [C-I-C] times, which would make the product cost prohibitive to the average consumer who uses methylated spirits for cleaning. This in turn would result in reduced sales, brand damage and job losses. ○ [C-I-C]. 	
Net benefit	Option 3 would result in a net cost.	[C-I-C]
Option 4 – Make a mandatory safety standard that combines Options 2 and 3		
Benefits		
<ul style="list-style-type: none"> • Reduces serious injuries and property damage from decorative alcohol devices by: preventing table top devices; requiring fixed and freestanding devices to have a warning and flame arrester/pump; and requiring all containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester. 	<ul style="list-style-type: none"> • As set out for Option 2, of the 56 injuries since 2010 where the device is identified, 45 injuries involve table top devices - average 6 injuries a year. Of the 16 house fires since 2010 where the device is identified, 6 relate to table top devices – average 0.9 house fires a year. The impact of these injuries and house fires from table top devices is estimated to be \$5.7 million to \$10.9 million per annum. • Option 4 could provide additional benefits to Option 2 if the following assumption in Option 2 is incorrect: That unsafe table top devices that were sold prior to the safety standard commencing are recalled. • Option 4 may also provide additional benefits to Option 2 if customers who have a fixed or free standing device (supplied with flame arrester) ignore the warning on their device, and use a methylated spirits container without a flame arrester. 	\$5.7 million to \$10.9 million per annum

Cost-benefit	Notes	Quantitative estimate where available
<ul style="list-style-type: none"> Improved consumer confidence leading to resumed sales of safe devices. 	This benefit is discussed in relation to Option 2.	Not available
Costs		
<ul style="list-style-type: none"> Reduces the range of devices that suppliers can sell (plus cost of testing to determine whether device meets stability test). 	These costs are discussed in relation to Option 2.	Not available
<ul style="list-style-type: none"> Imposes additional costs on suppliers of fixed and free standing devices: Warning labels and flame arrester/fuel pump. 		
<ul style="list-style-type: none"> Consumer detriment from less choice and a likely increase in the price of decorative alcohol fuelled devices. 		
<ul style="list-style-type: none"> Reduction in competition due to device suppliers (particularly smaller suppliers) being forced out of the market because of the costs associated with compliance, or because the specifications in a safety standard benefited some businesses over others. 		
<ul style="list-style-type: none"> Inconsistency between 		

Cost-benefit	Notes	Quantitative estimate where available
Australian and international standards in relation to the wording of the warnings.		
<ul style="list-style-type: none"> Imposes additional costs on suppliers of containers of ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester. 	<ul style="list-style-type: none"> This cost is discussed in respect of Option 3. 	\$[C-I-C]
Net benefit	As Option 3 is estimated to have a net cost, the net benefit of Option 4 (which combines Options 2 and 3) is likely to be less than Option 2. This is because of the costs imposed on fuel suppliers, and the fact that only a small percentage of methylated fuel supply is used for decorative alcohol fuelled devices.	Not available
Option 5 – Make a permanent ban on table top devices		
Benefits		
<ul style="list-style-type: none"> Reduces serious injuries and property damage from decorative alcohol fuelled devices by preventing table top devices and requiring fixed and freestanding devices to meet safety requirements (flame arrester/pump and warnings). 	<ul style="list-style-type: none"> The benefits are the same as for Option 2 as a permanent ban could be drafted to have the same impact, in practice, as a safety standard on the types of decorative alcohol fuelled devices supplied in Australia. The benefits may potentially be greater if a permanent ban results in a higher level of recalls of unsafe devices. 	\$5.7 million to \$10.9 million per annum
Costs		
<ul style="list-style-type: none"> Reduces the range of devices that suppliers can 	These costs are discussed in respect of Option 2.	Not available

Cost-benefit	Notes	Quantitative estimate where available
sell (plus cost of testing to determine whether device meets stability test).		
<ul style="list-style-type: none"> Imposes additional costs on suppliers of fixed and free-standing devices: Provision of fuel container with flame arrester (or fuel pump) and warning labels. 		
<ul style="list-style-type: none"> Consumer detriment from less choice and a likely increase in the price of decorative alcohol fuelled devices. 		
<ul style="list-style-type: none"> Reduction in competition due to device suppliers (particularly smaller suppliers) being forced out of the market because of the costs associated with compliance, or because the specifications in a safety standard benefited some businesses over others. 		
<ul style="list-style-type: none"> Inconsistency between Australian and international standards in relation to the wording of the warnings. 		
<ul style="list-style-type: none"> A permanent ban is likely to have a greater impact than a safety standard on the 	The ACCC does not have data to quantitatively estimate this cost.	Not available

Cost-benefit	Notes	Quantitative estimate where available
reputation and sales of safe devices.		
<ul style="list-style-type: none"> A permanent ban is less likely than a safety standard to facilitate a process by which device suppliers and Standards Australia develop a voluntary Australian standard with more detailed specifications for decorative alcohol fuelled devices in order to protect consumers. 	The ACCC does not have data to quantitatively estimate this cost.	Not available
Net benefit	The net benefit of Option 5 is likely to be less than Option 2 due to the impact that a permanent ban has on the reputation of an industry. It may also be less likely to facilitate a voluntary Australian standard that contains more detailed specifications to protect consumers.	Not available

Attachment B: Regulatory Burden Measurements for each of the options

The ACCC is required under *The Australian Government Guide to Regulation*, to quantify the regulatory costs imposed on businesses, community organisations and individuals by new regulation or changes to existing regulations. The ACCC is also required to identify (in dollar terms) measures that offset the cost imposed. The Australian Government requires the cost burden of new regulation to be fully offset by reductions in existing regulatory burden.

Table 1: Option 2 - Regulatory burden measurement (recommended option)

Average annual regulatory costs (from business as usual)				
Change in costs	Business	Community Organisations	Individuals	Total change in cost
Total, suppliers of decorative alcohol fuelled devices	\$250,000	\$0	\$0	\$250,000
Cost offset				
Agency	Business	Community organisations	Individuals	Total, by source
	\$Nil	\$0	\$0	\$Nil
Are all new costs offset?				
<input type="checkbox"/> Yes, costs are offset <input checked="" type="checkbox"/> No, costs are not offset <input type="checkbox"/> Deregulatory—no offsets required				
Total (Change in costs – Cost offset) = \$250,000 per annum				

A regulatory offset has not been identified; however, the ACCC is seeking to pursue net reductions in compliance costs and will work with affected stakeholders and across government to identify regulatory burden reductions where appropriate.

Table 2: Option 2 - Regulatory burden estimate

Segments affected	Business	
Average Annual Regulatory Costs (from business as usual) – Total change in costs	\$250,000 per annum	
Total compliance cost for suppliers of decorative alcohol fuelled devices	Estimate \$AUD	Explanation
1. Lost profit from no longer being able to supply table top devices.	Nil	Under the OBPR <i>Regulatory Burden Measurement Framework</i> (Feb 2016), opportunity cost (being the value of opportunities that cannot be realised because of the regulatory intervention) are excluded.

2. Recall process and refunds for unsafe table top devices already supplied.	Nil	Under the <i>Regulatory Burden Measurement Framework</i> , action taken to ensure compliance with the ACL statutory consumer guarantees is excluded.
3. Additional cost of supplying, for fixed and freestanding devices, a fuel container with a flame arrester (or automatic fuel pump)	\$250,000 per annum	<p>The Fire Company provided data on both the initial and ongoing costs to provide a flame arrester fitted to a jerry can: R&D \$20,000 Testing \$55,00 Ongoing landed cost: 0.15 per piece Ongoing insertion cost: 0.29 per bottle Total ongoing cost: 0.44 per bottle</p> <p>The total number of devices imported between 1 July 2012 and 30 June 2016 is estimated to be approximately 99,600 units (24,900 per annum) (although it should be noted that this estimate is difficult to determine). This suggests that the ongoing cost of providing a flame arrester for all devices could be \$10,956 per annum.</p> <p>Dohrmann Consulting, in its expert report, provided an example of a flame arrester that costs less than \$10. Applying this to 24,900 devices per annum, the additional cost would be \$249,000 per annum.</p> <p>Recochem Inc estimates that fitting flame arresters would increase the production cost of its 1L bottles by \$[C-I-C] per annum. If [C-I-C]% of supply is for devices, this would come to \$[C-I-C] per annum. Recochem Inc also estimates that the total cost of fitting flame arresters in the first year of production would be \$[C-I-C]. If [C-I-C] % of supply is for devices, this would come to \$[C-I-C] per annum. This does not cover all fuel suppliers. However, Recochem Inc has a major share of the market.</p> <p>For the purpose of this table, the ACCC has included a cost estimate of \$250,000 based on the advice from Dohrmann Consulting. The estimate does not include initial development costs but is also a significant overestimate in that it is based on imported units which include table top devices that would be prevented under the recommended safety standard.</p>
4. Warning labels	Nil	Recochem Inc and certain device suppliers advised that the cost of warning labels is not significant.
5. Stability test for free- standing and fixed devices	Nil	Device suppliers will need to ensure that the device satisfies the stability test in the European standard. However, device suppliers (Ambience Eco Fires; two device suppliers (confidential)) advised their devices already meet the European standard.

Table 3: Option 3 - Regulatory burden measurement

Average annual regulatory costs (from business as usual)				
Change in costs	Business	Community Organisations	Individuals	Total change in cost
Total, suppliers of ethanol fuel	\$[C-I-C]	\$0	\$0	\$[C-I-C]

Average annual regulatory costs (from business as usual)				
Cost offset	Business	Community organisations	Individuals	Total, by source
Agency	\$Nil	\$0	\$0	\$Nil
Are all new costs offset? <input type="checkbox"/> Yes, costs are offset <input checked="" type="checkbox"/> No, costs are not offset <input type="checkbox"/> Deregulatory—no offsets required				
Total (Change in costs – Cost offset) = \$(C-I-C) per annum				

Table 4: Option 3 - Regulatory burden estimate

Segments affected	Business	
Average Annual Regulatory Costs (from business as usual) – Total change in costs	\$(C-I-C) per annum	
Total compliance cost for suppliers of ethanol fuel	Estimate \$AUD	Explanation
Additional cost of supplying ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester	\$(C-I-C)	<p>Recochem Inc estimates that fitting flame arresters would increase the production cost of its 1L bottles by \$(C-I-C) per annum. If [C-I-C] % of supply is for devices, this would come to \$(C-I-C) per annum. Recochem Inc also estimates that the total cost of fitting flame arresters in the first year of production would be \$(C-I-C). If [C-I-C] % of supply is for devices, this would come to \$(C-I-C) per annum.</p> <p>For the purposes of this table, the ACCC has used the estimate of \$(C-I-C) per annum. However, this is likely to be a significant underestimate as it does not cover [C-I-C].</p>

Table 5: Option 4 - Regulatory burden measurement

Average annual regulatory costs (from business as usual)				
Change in costs	Business	Community Organisations	Individuals	Total change in cost
Total, suppliers of decorative alcohol fuelled devices and suppliers of ethanol fuel	\$(C-I-C)	\$0	\$0	\$(C-I-C)
Cost offset				
Cost offset	Business	Community organisations	Individuals	Total, by source
Agency	\$Nil	\$0	\$0	\$Nil
Are all new costs offset? <input type="checkbox"/> Yes, costs are offset <input checked="" type="checkbox"/> No, costs are not offset <input type="checkbox"/> Deregulatory—no offsets required				
Total (Change in costs – Cost offset) = \$(C-I-C) per annum				

Table 6: Option 4 - Regulatory burden estimate

Segments affected	Business	
Average Annual Regulatory Costs (from business as usual) – Total change in costs	\$[C-I-C] per annum	
Total compliance cost	Estimate \$AUD	Explanation
For suppliers of decorative alcohol fuelled devices	\$250,000	See Table 2 (Option 2)
Additional cost of supplying ethanol fuel with a capacity of 5 litres or less, when packed and labelled as a biofuel suitable for use in spirit burners, to have a flame arrester	\$[C-I-C]	See Table 4 (Option 3)

Table 7: Option 5 - Regulatory burden measurement

Average annual regulatory costs (from business as usual)				
Change in costs	Business	Community Organisations	Individuals	Total change in cost
Total, suppliers of decorative alcohol fuelled devices	\$250,000 per annum	\$0	\$0	\$250,000 per annum
Cost offset				
Agency	Business	Community organisations	Individuals	Total, by source
Agency	\$Nil	\$0	\$0	\$Nil
Are all new costs offset? <input type="checkbox"/> Yes, costs are offset <input checked="" type="checkbox"/> No, costs are not offset <input type="checkbox"/> Deregulatory—no offsets required				
Total (Change in costs – Cost offset) = \$250,000 per annum				

Table 8: Option 5 - Regulatory burden estimate

Segments affected	Business	
Average Annual Regulatory Costs (from business as usual) – Total change in costs	\$250,000 per annum	
Total compliance cost for suppliers of decorative alcohol fuelled devices	Estimate \$AUD	Explanation
For suppliers of decorative alcohol fuelled devices	\$250,000	See Table 2 (Option 2)