



# Long term solution to unsafe decorative alcohol fuelled devices

## Consultation paper

April 2017



Office of Best Practice Regulation Reference - 21872

## Consultation Paper

The Australian Competition & Consumer Commission has released this consultation paper to assist interested parties to inform the development of a long term solution that addresses the safety hazards posed by certain decorative alcohol fuelled devices (commonly referred to as 'ethanol burners').

### Key dates

**National interim ban** 17 March 2017

**Release of consultation paper** 21 April 2017

**Due date for submissions** 21 May 2017

**National interim ban expires** 15 May 2017

(can be extended by the Minister up to 14 July 2017)

### Submissions can be lodged

**Online:** ACCC consultation hub at [consultation.accc.gov.au/](http://consultation.accc.gov.au/)

**By email or post:** Director  
Standards and Policy  
Consumer Product Safety Branch  
Australian Competition and Consumer Commission  
GPO Box 3131  
CANBERRA ACT 2601  
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# 1. Introduction

The Australian Competition and Consumer Commission (ACCC) has prepared this consultation paper to inform a long term solution that addresses the safety hazards posed by certain decorative alcohol fuelled devices (commonly referred to as ‘ethanol burners’).

This consultation paper is in the format of a Regulation Impact Statement (RIS). The Australian Government requires a RIS to inform every regulatory policy proposal, unless it is a minor update to existing laws. The RIS process assesses the costs and benefits of policy options to ensure any regulation provides the greatest benefit to the Australian community.

## 2. Have your say

The Australian Minister for Small Business, the Hon. Michael McCormack MP (the Minister), accepted the ACCC’s recommendation to impose a national interim ban. The interim ban came into effect on 17 March 2017 for a period of 60 days. The Minister can extend the interim ban twice for a period of up to 30 days on each occasion, meaning the ban can remain in force to the end of 14 July 2017.

The ACCC invites interested parties to provide information and comment on this consultation paper to inform the development of a long term solution.

Consultation is open from 21 April 2017 to 21 May 2017. Following the consultation process, the ACCC will make a recommendation to the Minister.

It is important that you provide your submission by **21 May 2017**. The ACCC may not be able to incorporate, into its recommendation, any submissions received after this date. You may like to consider providing an initial short submission outlining key points, and then providing, by 21 May 2017, supporting material such as data, reports and documentation.

This consultation paper outlines what the ACCC sees as the relevant policy options, and sets out a number of questions at section 10. However, the ACCC welcomes submissions on any issue that you see as relevant.

Submissions should be made via the ACCC consultation hub at [consultation.accc.gov.au](http://consultation.accc.gov.au). Alternatively, submissions can be emailed or posted to:

Director  
Standards and Policy  
Consumer Product Safety Branch  
Australian Competition and Consumer Commission  
GPO Box 3131  
CANBERRA ACT 2601

Email: [productsafety.regulation@acc.gov.au](mailto:productsafety.regulation@acc.gov.au)

All submissions will be treated as public documents and published on the ACCC website after the Minister’s decision, unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim – the identified information must be genuinely of a confidential nature and not otherwise publicly available
- provide a non-confidential version of the submission in a form suitable for publication – this public version should identify where confidential information has been redacted.

The ACCC will not disclose the confidential information to third parties (other than the Minister's office, and advisors or consultants engaged directly by the ACCC) except where permitted or required by law. For further information, see our [consultation process](#) and [Information Policy](#), June 2014 available on our website.

### 3. The problem and the need for government action

There are certain decorative alcohol fuelled devices in the Australian market that are unsafe because of their design and lack of appropriate safety features to protect consumers from death and serious injuries.

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), often referred to as 'fireplaces'.

Based on incident and injury data (section 5), and consultation with suppliers, the table top devices appear to be the most dangerous. The most significant problem is that many of these small devices require refilling in the same location as the burner opening, and the flame can sometimes be invisible. Many of the incidents and injuries occurred when:

- refilling the device while it was still ignited or too hot causing a flash flame or uncontrolled fire
- spilling fuel while filling the device leading to uncontrolled fires
- knocking over the device and spreading burning fuel
- being in close proximity to the device and the fuel vapour ignited.

The table top devices are likely to be too small to include sufficient mechanisms to improve their safety.

A national interim ban is currently in place and the ACCC is consulting on policy options to inform a long term regulatory solution to address the safety hazards associated with decorative alcohol fuelled devices.

The following policy options considered in this paper are informed by our engagement with the industry and our analysis of market and incident data.

- 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

## 4. 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.

The market for these devices in Australia is an emerging market, and 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. This dataset shows that the total value of products imported into Australia from 2012 to 2016 was approximately \$4.5 million AUD. There is no robust evidence to indicate a decline in the market since 2014; however some importers and suppliers have withdrawn from the market. This dataset shows that as of June 2016, approximately 100 individual importers had imported products since 2012. The top 15 importers account for 85% of the market in Australia.<sup>1</sup>

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.

### Fuel for decorative alcohol fuelled devices

The fuel is typically liquid ethanol 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.

### Government action

The Poisons Standard, made under the *Therapeutic Goods Act 1989*, sets out the following requirements for methylated spirits:<sup>2</sup>

- 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.
- 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'.

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<sup>1</sup> Department of Immigration and Border Protection, *Import data*, Canberra ACT, 2017

<sup>2</sup> Australian Government Federal Register of Legislation, 2017 Poisons standard, Canberra, ACT, viewed 29 March 2017, [www.legislation.gov.au/Details/F2017L00057](http://www.legislation.gov.au/Details/F2017L00057)

- 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'.

This last requirement for a warning on refilling a burner came into effect in February 2016 following an application by the ACCC, in November 2013, to the Department of Health seeking an amendment to the Poisons Standard.

As part of this process, the ACCC engaged with suppliers of decorative alcohol fuelled devices and methylated spirits to seek their views on the proposal to amend the entry for methylated spirits in the Poisons Standard, and for information about the safety of the devices. Suppliers indicated their support for this change to the Poisons Standard. It should be noted that, at this time, 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'.

In addition, the ACCC and Queensland Office of Fair Trading released a joint education campaign in 2015 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',<sup>3</sup> to demonstrate to consumers the safety hazards associated with refilling devices while still lit.

## **Australia's consumer product safety framework**

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

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 or issuing a compulsory recall notice to suppliers (in relation to goods only). In addition, the Commonwealth Minister has the power to declare mandatory safety standards and impose permanent bans. These specific provisions are considered in circumstances of safety related market failure. Suppliers are responsible for selling consumer goods that are safe and fit for purpose. This includes ensuring that goods are compliant with any relevant mandatory safety standard or ban.

## **Voluntary and compulsory recalls**

Under the ACL, consumer goods can be subject to recall action. Under section 128 of the ACL, a supplier can voluntarily take action to recall consumer goods of a particular kind if:

- a) the consumer goods will or may cause injury; or
- b) a reasonable foreseeable use (including misuse) of consumer goods will or may cause injury; or
- c) a safety standard for such goods is in force and the goods do not comply with the standard; or
- d) an interim ban or a permanent ban on such goods is in force.

Under section 122 of the ACL, the Commonwealth Minister may issue a compulsory recall notice for consumer goods of a particular kind if:

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<sup>3</sup> Australian Competition & Consumer Commission, Product Safety Australia website, Canberra, ACT, viewed 29 March 2017, [www.productsafety.gov.au/news/decorative-alcohol-fuelled-devices](http://www.productsafety.gov.au/news/decorative-alcohol-fuelled-devices)

- a) it appears to the Minister that such goods will or may cause injury to any person; 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) it appears to the Commonwealth Minister that 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.

### **State and Territory interim bans**

On 20 December 2016, the Western Australia Minister for Commerce, the Hon. Michael Mischin MLC, 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. The State and Territory interim bans expired from 23 March 2017.

### **National interim ban**

On 21 December 2016, the Minister for Small Business, the Hon. Michael McCormack MP (the Minister), published a proposed 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, which indicates that refuelling a device while still ignited, is a significant cause of injury, 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 freestanding devices, provided they are:

- at least 8 kilograms dry weight and a footprint of at least 900 square centimetres; and
- designed to reduce the risk that they will be refuelled when lit by having a fuel tank that must be removed from the device for refuelling and the device includes a permanent warning about refuelling risks; or
- supplied with a fuel container that incorporates a flame arrester to protect the user if they attempt to refuel the device while it is still lit and the device includes a permanent warning about refuelling risks.

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.



The Minister accepted the ACCC's recommendation to impose a national interim ban, which came into effect on 17 March 2017 for a period of 60 days. The Minister can extend the interim ban period 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.

## 5. Deaths and injuries

The ACCC has obtained incident and injury data from a range of sources, including State and Territory emergency and fire departments, 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.

Accident data in certain European countries prior to 2010 is summarised in a report prepared for the European Commission General Product Safety Directive (GPSD) Committee.<sup>4</sup> The ACCC is aware of three reported deaths overseas involving decorative alcohol fuelled devices since 2010. Two of the deaths occurred in the United States<sup>5</sup> and one death occurred in the United Kingdom.<sup>6</sup> 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. While there have been no reported deaths in Australia involving decorative alcohol fuelled devices, there have been a number of reported incidents and injuries.

Since 2010, there have been at least 113 reported incidents involving decorative alcohol fuelled devices. These incidents are associated with 105 injuries and 36 house fires. Of these 105 injuries, 45 were associated with table top devices, six were associated with fixed devices and five were associated with freestanding devices. The type of device was undetermined for 49 of the 105 injuries. 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.

The type of decorative alcohol fuelled device involved can be identified for 58 of the 113 incidents. Of these 58 incidents, 40 are associated with table top devices, nine with free standing or portable devices and nine with fixed devices. Details of the type of device associated with the remaining 55 incidents were unreported.

For the 45 injuries involving table top devices, 28 of these occurred when the device was being refilled or had just been refilled. The most significant problem with table top devices is that the product design requires the user to refill them 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.

Table top devices are also problematic in that they 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 and therefore would increase the risk of injury to consumers.

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<sup>4</sup> Report prepared for the GPSD Committee, May 2010, [Study of Safety Requirements for Open Stoves or Fireplaces Using Alcohol Fuels](#)

<sup>5</sup> 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](http://www.regulations.gov/document?D=CPSC-2011-0095-0001)

<sup>6</sup> 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](http://www.stokesentinel.co.uk/warning-bio-fuel-fires-woman-s-death/story-16456191-detail/story.html)

Other causes of incidents and injuries, such as incorrect fuel being used, incorrect installation, environmental causes such as wind blowing flames on to combustible material, or risks from the gasses produced by the burning flame appear to be much less common.

## 6. Australian standards

Standards Australia is a not-for-profit standards organisation that develops voluntary Australian standards through the formation of expert technical committees.<sup>7</sup> 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, revision or amendment of a standard.<sup>8</sup>

Through the consultation process for the national interim ban, the ACCC has become aware that some suppliers are considering making a project proposal submission to Standards Australia for the development of a voluntary Australia standard for decorative alcohol fuelled devices. Should a voluntary Australian standard be developed, it could be adopted (all or part) in a mandatory safety standard for decorative alcohol fuelled devices.

## 7. International standards

There are two voluntary international standards for decorative alcohol fuelled devices, a European standard and a US standard.

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.<sup>9</sup> 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*<sup>10</sup> (EN standard).

Underwriters Laboratories (UL) develops voluntary safety standards in the US through the formation of standards technical panels.<sup>11</sup> In 2016, UL published the third revision of UL 1370 Standard for safety – *Unvented Alcohol Fuel Burning Decorative Appliances*<sup>12</sup> (UL standard).

In 2015, a European Commission decision (EU) 2015/547 (Commission Decision) was made on the safety requirements to be met by European standards for alcohol-powered flueless fireplaces.<sup>13</sup> The Commission Decision has regard to the General Product Safety Directive 2001/95/EC, for which the objective is to make sure only safe products enter the market.<sup>14</sup> This means that a European standard for alcohol-powered flueless fireplaces is to include safety requirements that satisfy the intent of the General Product Safety Directive. Table 1 compares requirements for key safety features across the international standards.

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<sup>7</sup> Standards Australia 2017, Sydney Australia, viewed 24 March 2017, [www.standards.org.au/Pages/default.aspx](http://www.standards.org.au/Pages/default.aspx)

<sup>8</sup> Standards Australia 2017, Proposing a project, Sydney Australia, viewed 24 March 2017, [www.standards.org.au/StandardsDevelopment/Developing\\_Standards/Pages/Proposing-a-project.aspx](http://www.standards.org.au/StandardsDevelopment/Developing_Standards/Pages/Proposing-a-project.aspx)

<sup>9</sup> European Committee for Standardization, 2017, Brussels, Belgium, viewed 24 March 2017, [www.cen.eu/Pages/default.aspx](http://www.cen.eu/Pages/default.aspx)

<sup>10</sup> 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*

<sup>11</sup> Underwriters Laboratories Inc., 2017, Illinois, USA, viewed on 31 March 2017, [www.ul.com/](http://www.ul.com/)

<sup>12</sup> Underwriters Laboratories Inc., 2011, UL 1370 Standard for safety – *Unvented Alcohol Fuel Burning Decorative Appliances*

<sup>13</sup> 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](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L.2015.090.01.0014.01.ENG)

<sup>14</sup> European Commission, General Product Safety Directive, Brussels, Belgium, viewed 24 March 2017, viewed 24 March 2017, [ec.europa.eu/consumers/consumers\\_safety/product\\_safety\\_legislation/general\\_product\\_safety\\_directive/index\\_en.htm](http://ec.europa.eu/consumers/consumers_safety/product_safety_legislation/general_product_safety_directive/index_en.htm)

## **European standard**

The EN standard applies to decorative devices for domestic use, that use alcohol as fuel (minimum 95% ethanol), and have a maximum thermal output of 4.5kW. The standard applies to mounted, free standing and built in devices, but excludes devices used for food preparation, heating or outdoors. The European standard does not apply to devices where the fuel tank is separate from the device and it 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 Commission Decision applies to all domestic flueless alcohol fuelled fireplaces and their accessories where these are intended for use indoors. Devices intended for outdoor use and devices intended for heating food are not within the scope of this standard.

In addition, the Commission Decision requires the design of the device to make it impossible to reignite the alcohol-powered flueless fireplace until all parts of the device, including the burner, have reached a safe temperature of 60°C or below. The Commission Decision also requires the design of the alcohol powered flueless fireplace to make filling and re-filling safe, and to prevent the tank of the fireplace from being refilled while the fireplace is lit.

At the supplier conference, most suppliers indicated that they did not support the full adoption of the EN standard because it is inherently flawed. Most suppliers also stated that it is not possible to satisfy all the requirements of the European Commission Decision because some of the requirements are contradictory, and that it was not suited to Australian conditions. Detailed information in support of these views was not provided.

We invite stakeholder views about whether a mandatory safety standard for certain decorative alcohol fuelled devices should adopt parts of the EN standard or the Commission Decision and if so, to specify which parts (section 10).

## **UL standard**

The UL standard only covers devices intended to be fixed and does not include freestanding devices. It requires devices to be secured by screws, bolts or equivalent to wall studs, floor joists or concrete floors. However, a device that weighs more than 100 pounds (45.46kg) and meets stability requirements is considered to be fixed and is not required to be secured by screws or bolts etc.

It also includes requirements for stability testing to prevent tipping and a warning label to be affixed to the front of the device.

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.

At the supplier conference, most suppliers indicated that they did not support the full adoption of the UL standard because it is incomplete.

We invite stakeholder views about whether a mandatory safety standard for certain decorative alcohol fuelled devices should adopt relevant parts of the UL standard, and if so to specify which parts (section 10).

**Table 1: Comparison of safety features across international standards**

Key safety features	UL standard	EN standard	European Commission Decision
Requirement to prevent refilling of fuel while burner is lit	No	No	Yes
Requirement to prevent reigniting while burner is hot	No	No	Yes
Requirement for easily accessible flame extinguishing mechanism	Yes	Yes	Yes
Prevent fuel spillage	No	Yes	No
Prevent tipping	Yes	Yes	Yes
Maximum fuel capacity	Yes	Yes	Yes
Warning label	Yes	Yes	Yes
User manual	Yes	Yes	Yes

## 8. Detailed policy options

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

#### Description

Under this option, there would be no additional regulation of the supply of decorative alcohol fuelled devices or fuel containers once the national interim ban expires.

Suppliers would still need to comply with the consumer protection provisions of the ACL. 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.

Suppliers of methylated spirits containers would also need to continue to comply with the Poisons Standard.

#### 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.

## Limitations

Given the number of serious injuries in Australia associated with the use of certain decorative alcohol fuelled devices, no additional regulatory intervention to remove unsafe devices from the market is likely to result in ongoing serious injuries to consumers, and property damage.

Guidance published by the Office of Best Practice Regulation 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.<sup>15</sup> 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.<sup>16</sup> Escalated to December 2016 dollars, this range becomes \$860,000 to \$1.72 million per individual.

The out of pocket cost of a skin like dressing for an individual who suffered over 50 per cent burns to their body involving a decorative alcohol fuelled device (table top device) in 2014 was \$100,000.<sup>17</sup> Escalated to December 2016 dollars, this figure becomes \$102,550.<sup>18</sup>

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.<sup>19</sup> Escalated to December 2016 dollars the property damage from fire becomes \$32,700 per house fire.

### *Estimated costs to individuals*

Injury and incident data from 2010 to 2017 currently available to the ACCC suggests that the cost of injuries and property damage from the three main types of decorative alcohol fuelled devices is at least \$14.6 million to \$27.5 million per annum as outlined below:

- 105 injuries or incidents and 36 properties damaged in 2010-2017
- Average 15 injuries or incidents a year at a cost of \$102 500<sup>20</sup> = **\$1.54 million p/a**
- Average 5 properties damaged a year at a cost of \$32 700 = **\$163 500 p/a**
- Value of a statistical life \$860,000 to \$1.72 million = **\$12.9 – \$25.8 million per injury or incident**
- **Total cost = \$14.6 – \$27.5 million**

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<sup>15</sup> 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](http://www.dpmc.gov.au/sites/default/files/publications/Value_of_Statistical_Life_guidance_note.pdf)

<sup>16</sup> 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](http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=6442459196)

<sup>17</sup> Direct information from relative of patient who suffered severe burns from an alcohol fuelled device, received 6 February 2017

<sup>18</sup> However, note that this figure is based on only one patient's experience.

<sup>19</sup> NSW Fire and Rescue, Annual Statistic Reports for 2006/07, viewed 30 March 2017, [www.fire.nsw.gov.au/page.php?id=171](http://www.fire.nsw.gov.au/page.php?id=171)

<sup>20</sup> However, note that this figure is based on only one patient's experience.

These figures are only a rough estimate of the cost to individuals from injuries and fire damage and are likely to be a significant underestimate because they:

- Reflect only injuries and fire incidents that have been reported to the ACCC.
- Do not take into account the cost to the health care system or 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

We will assess the net benefits of the other policy options against this option of no additional regulation.

## Option 2 – Make a mandatory safety standard for decorative alcohol fuelled devices with the same effect as the national interim ban

### Description

Under section 104 of the ACL, the Commonwealth Minister may make a safety standard setting out certain 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.

A mandatory safety standard could have the same scope and effect as the current national interim ban (page 8).

### Benefits

This option would facilitate the ongoing supply of safe decorative alcohol fuelled devices. There would also be consistency in the safety features for these devices across the market.

These safety features would likely result in a reduction in serious injuries to consumers and incidents (such as house fires) which predominately occur when refilling the device. This would also increase consumer confidence in the safety of these devices and the likelihood of increased sales for businesses.

#### *Estimated costs to individuals*

Of the 55 injuries since 2010 where the device is identified, this proposed safety standard would not be relevant to the six injuries involving fixed devices, but may be relevant to the 45 injuries involving table top devices<sup>21</sup> and the five injuries involving freestanding devices.<sup>22</sup>

Of the 45 injuries involving table top devices, 28 of the injuries occurred when the devices were being refilled or had just been refilled. The cost of injuries and property damage from these 28 injuries is estimated to be at least \$3.88 to \$7.32 million per annum as outlined below:

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<sup>21</sup> Most, but not all, table top devices would fail to meet the minimum weight (8 kilograms) and footprint (900 square centimetres).

<sup>22</sup> Most, but not all, freestanding devices would have a power output greater than 4.5 kilowatts.

- 28 injuries or incidents and 3<sup>23</sup> properties damaged in 2010-2017
- Average 4 injuries or incidents a year at a cost of \$102 500<sup>24</sup> = **\$410 000 p/a**
- Average 0.4 properties damaged a year at a cost of \$32 700 = **\$13 080 p/a**
- Value of a statistical life \$860,000 to \$1.72 million = **\$3.44 – \$6.88 million per injury or incident**
- **Total cost = \$3.88 – \$7.32 million**

This estimate is likely to be a significant underestimate of the benefits of Option 2 because the figures:

- Reflect only injuries and fire incidents that have been reported to the ACCC.
- Only include reported injuries from refuelling tabletop devices. The figures do not include the broader reduction in risk for tabletop devices (weight/footprint) and freestanding devices (weight/footprint and refuelling).
- Do not take into account the reduction in cost to the health care system or broader benefits such as the reduction in social harm, economic harm and the financial harm for suppliers of safe devices from the loss in confidence.

However, the estimate may also be overstated in that Option 2 allows a device to be supplied (where it meets the minimum weight and footprint requirements) if it comes with a fuel container with a flame arrester (with warning).

The significant penalties associated with breaching a mandatory safety standard would be accessible to the ACCC and other ACL product safety regulators to pursue suppliers who breach the law.

## Limitations

A mandatory safety standard with the effect of the interim ban would reduce the range of devices available to consumers – in particular, a device would have to meet the minimum weight (8 kilograms) and footprint (900 square centimetres) unless the device has a certain power output, is a fixture or is for food warming. This would reduce consumer choice, and have a financial impact on businesses who would otherwise supply such devices.

The safety standard would also impose additional costs on suppliers who would have to ensure that devices that met the minimum weight and footprint requirements also had a separate fuel tank or came with a fuel container that incorporates a flame arrester. This additional business cost may result in consumer detriment stemming from the likely increase in pricing of decorative alcohol fuelled devices.

There may also be a reduction in competition due to suppliers (particularly smaller suppliers) being forced out of the market because of the costs associated with compliance.

## Net Benefits

This option is likely to result in a significant reduction in the number of serious injuries to consumers and to property damage or destruction.

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<sup>23</sup> Three incidents of property damage from fire after refilling a table top device.

However, in the absence of additional costs to business under this option, a reasonable quantitative estimate of net benefits cannot be determined at this stage. We encourage suppliers to provide this information as part of their submission.

Suppliers are also encouraged to provide information on options to address the risks arising from consumers using a fuel container that does not come with a flame arrester (and warning). This issue is discussed under option 3.

### **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**

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 the decorative alcohol fuelled device.

#### **Benefits**

Under Option 3, there would be no limitations on the range of decorative alcohol fuelled devices that could be supplied. Mandating a requirement for ethanol fuel in certain containers to be supplied with a flame arrester directly addresses the safety hazard around refilling.

Of the 55 injuries since 2010 where the device is identified, this proposed safety standard would be relevant to those that related to refuelling 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'. This could apply to fixed devices, as well as freestanding and table top devices.

As discussed in Option 2 above, the injury and incident data from 2010 to 2017 currently available to the ACCC indicates that, of the 55 injuries where the device is identified, 45 injuries involved table top devices. Of these 45 injuries, 28 occurred when the devices were being refilled or had just been refilled. The cost of injuries and property damage from these 28 injuries is estimated to be at least \$3.88 to \$7.32 million per annum (see Table 3 above).

This estimate is likely to be a significant underestimate of the benefits of Option 3 because the figures

- Reflect only injuries and fire incidents that have been reported to the ACCC.
- Only include reported injuries from refuelling tabletop devices. The figures do not include the broader reduction in risk for refuelling freestanding and fixed devices.
- Do not take into account the reduction in cost to the health care system or broader benefits such as the reduction in social harm, economic harm and the financial harm for suppliers of safe devices from the loss in confidence.



## **Limitations**

This option does not address consumers using methylated spirits supplied in supermarkets, hardware stores and camping/outdoors stores that are not packed and labelled as a 'biofuel' suitable for use in 'spirit burners', to fuel these devices.

In terms of compliance costs, this option would have a significant impact on all suppliers of ethanol fuel in the prescribed containers and would affect competition in the market.

The benefits of Option 3 differ from Option 2 in that Option 3 does not address other hazards associated with ethanol burners such as a device being knocked over while lit, causing burning fuel to spread.

## **Net Benefits**

Option 3 is likely to result in a reduction in the number of serious injuries to consumers and to property damage or destruction.

However, in the absence of additional costs to business under this option, a reasonable quantitative estimate of net benefits cannot be determined at this stage. As with Option 2, we encourage suppliers to provide this information as part of their submission including the practical impact of limiting the safety standard to ethanol fuel containers with a capacity of 5 litres or less, and which are packed and labelled as a 'biofuel' suitable for use in 'spirit burners'. The ACCC is also seeking information on alternative options to address the risks arising from consumers using a fuel container that does not come with a flame arrester.

## **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**

Mandating safety requirements for both the device and the ethanol fuel used with the device would address the hazards associated with fuel capacity, stability, which relates to weight and footprint, and refilling. This would likely prevent serious burn injuries to consumers.

There would also be consistency in the safety features for decorative alcohol fuelled devices and for 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.

The significant penalties associated with breaching a mandatory safety standard would be accessible to the ACCC and other ACL product safety regulators to pursue suppliers who breach the law.

### **Limitations**

This option would impose additional compliance costs on suppliers of decorative alcohol fuelled devices and on those who supply ethanol fuel. As noted under Option 3, this option does not address consumers using methylated spirits supplied in supermarkets, hardware stores and camping/outdoors stores that are not packed and labelled as a 'biofuel' suitable for use in 'spirit burners', to fuel these devices.

Option 4 may also result in unnecessary duplication. If the device meets the weight and footprint requirements and has a removable fuel tank (with warning), then a fuel container with flame arrester may not be needed.

## Net Benefits

The benefit of Option 4 is likely to be greater than the benefit of Option 2 or Option 3. However, the cost of Option 4 is also likely to be greater. We encourage suppliers to provide information on the viability and costs of Option 4 as part of their submission.

## 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.

'Table top devices' could be defined in a permanent ban as:

- being designed to sit on furniture such as a table or wall shelves
- having a power output less than 4.5 kilowatts
- having a dry weight less than 8 kilograms
- having a footprint less than 900 square centimetres
- not designed for food warming
- not designed to require installation in a fixed position.

### Benefits

#### *Estimated costs to individuals*

Of the 55 injuries since 2010 where the device is identified, this proposed permanent ban would be relevant to the 45 injuries involving tabletop devices. The cost of injuries and property damage from these 45 injuries is estimated to be at least \$5.81 to \$10.9 million per annum as outlined below:

- 45 injuries or incidents and 6<sup>25</sup> properties damaged in 2010-2017
- Average 6 injuries or incidents a year at a cost of \$102 500<sup>26</sup> = **\$615 000 p/a**
- Average 1 properties damaged a year at a cost of \$32 700 = **\$32 700 p/a**
- Value of a statistical life \$860,000 to \$1.72 million = **\$5.16 – \$10.3 million per injury or incident**
- **Total cost = \$5.81 – \$10.9 million**

This estimate is likely to be a significant underestimate of the benefits of Option 5 because the figures:

- Reflect only injuries and fire incidents that have been reported to the ACCC.

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<sup>25</sup> Six incidents of property damage from fire involving a table top device.

<sup>26</sup> However, note that this figure is based on only one patient's experience.

- Do not take into account the reduction in cost to the health care system or broader benefits such as the reduction in social harm, economic harm and the financial harm for suppliers of safe devices from the loss in confidence.

The benefits of Option 5 differ from Options 2, 3 and 4 in that:

- Option 5 is likely to prevent more injuries from table top devices than Option 2, 3 or 4.
- However, Option 5 is likely to prevent fewer injuries from freestanding devices than Options 2, 3 or 4. Option 2 requires such devices (if under the power output limit) to have a removable fuel tank or fuel container with a flame arrester. Option 3 permits such devices, but requires certain fuel containers to be supplied with a flame arrester.

### **Limitations**

A permanent ban on table top devices would reduce the range of devices available to consumers. This would reduce consumer choice, and have a financial impact on businesses who would otherwise supply such devices.

### **Net Benefits**

This option is likely to result in a significant reduction in the number of serious injuries to consumers and to property damage or destruction.

However, in the absence of additional costs to business under this option, a reasonable quantitative estimate of net benefits cannot be determined at this stage. We encourage suppliers to provide this information as part of their submission.

## **9. Preliminary position**

The following table summarises the ACCC's preliminary view on the comparative benefits and costs of Options 1 to 5.

	<b>Option 1 (no additional regulation)</b>	<b>Option 2 (safety standard with same impact as interim ban)</b>	<b>Option 3 (prescribed fuel containers have flame arrester)</b>	<b>Option 4 (option 2 &amp; 3)</b>	<b>Option 5 (table top devices ban)</b>
<b>Harm to consumers</b>					
<b>Table top devices</b>	No reduction in harm	Reduces incidents from refuelling, and other incidents e.g. stability. But impact on refuelling is reduced where customers use fuel containers obtained from other sources	Reduces incidents from refuelling if device is refilled using fuel container Does not reduce other incidents e.g. stability	Reduces incidents from refuelling, and other incidents e.g. stability	Most reduction in harm
<b>Freestanding devices</b>	No reduction in harm	Reduces incidents from refuelling (if under power output specification). But impact on refuelling is reduced where customers use fuel containers obtained from other sources	Reduces incidents from refuelling if device is refilled using fuel container	Reduces incidents from refuelling	No reduction in harm
<b>Fixed devices</b>	No reduction in harm	No reduction in harm	Reduces harm if fixed device is refilled using fuel container	Reduces harm if fixed device is refilled using fuel container	No reduction in harm
<b>Cost to businesses</b>					
Financial impact of option	No additional cost on business.	Additional cost on: suppliers who can no longer supply devices under the weight/footprint; and suppliers who supply devices above weight/footprint but now must also supply removable fuel tank or fuel container with flame arrester	Additional cost for suppliers of prescribed fuel containers	Costs of Options 2 and 3	Additional cost for suppliers who can no longer supply table top devices

The ACCC is currently of the view that Option 2 is the preferred approach although the ACCC is also considering whether Option 4 (that is, Option 2 combined with Option 3) may be warranted.

Stakeholder submissions to this consultation will help inform the cost-benefit analysis for each option, and to recommend the most appropriate option to the Minister.

## 10. Key questions

The questions below identify the issues that the ACCC is reviewing to develop a recommendation to the Minister. The ACCC encourages you to respond to any of the questions that are relevant to you, and where you consider that you can inform the ACCC's recommendation.

1. Do you supply 'decorative alcohol fuelled devices'? If so:
  - a) Do you manufacture the devices in Australia? If not, do you assemble them in Australia using parts sourced from overseas or do you import the finished device for distribution in Australia?
  - b) What categories of devices do you supply?
  - c) How many decorative alcohol fuelled devices (by category) do you supply annually?
  - d) If you supply table top devices, what characteristics do you consider define a table top device? (E.g., weight, footprint, fuel capacity?)
  - e) What is the average retail cost of the decorative alcohol fuelled devices (by category) that you supply?
  - f) What impact would Option 2, 3, 4 or 5 have on your business?
2. Do you supply ethanol fuel? If so:
  - a) For what purposes is such fuel supplied?
  - b) What proportion of your supply would be categorised as 'containers having a capacity of 5 litres or less, and which are packed and labelled as a 'biofuel' suitable for use in 'spirit burners''? How does this compare to the proportion of your supply of fuel that you would estimate is used for 'decorative alcohol fuelled devices'?
  - c) Do you currently supply ethanol fuel in containers fitted with a flame arrester?
  - d) What impact would Option 2, 3, 4 or 5 have on your business?
3. This paper mainly focuses on the risks, from refuelling, of burns and property damage from fire, especially for table top devices.
  - a) Do you agree with the issues identified? Are there other safety hazards that the policy solution should address?
  - b) If you supply 'decorative alcohol fuelled devices': If you are able to do so, please estimate the prevalence of such incidents (e.g., one in one hundred, one in one thousand units) for the different categories of devices you supply.
  - c) What design or product features or warning labels could reduce the risk of these incidents? How much would this add to the cost and/or retail price of a 'decorative alcohol fuelled device' or fuel containers?
  - d) Do you think government action is required to reduce the risk posed by such devices?

- e) Do you see any specific pros or cons of the policy options outlined in this paper (including the proposed specifications)?
  - f) Would these options create a trade barrier between Australia, and the US or Europe (due to the UL standard, EN standard or European Commission Decision)?
  - g) Do you see any specific issues with a mandatory safety standard adopting parts of the European standards and/or the US standard set out in section 7? If yes, please indicate which parts and why. If not, why not?
  - h) Are you aware of any evidence where the European standards and/or the US standard have had an effect on reducing incidents and injuries overseas?
4. If Option 2, 3, 4 or 5 is adopted, how should it be implemented? If you supply ‘decorative alcohol fuelled devices’ or ‘ethanol fuel in containers having a capacity of 5 litres or less, and which are packed and labelled as a 'biofuel' suitable for use in 'spirit burners’:
- a) What proportion of the existing products in the market would not be in compliance?
  - b) On average, how long do consumers use decorative alcohol fuelled devices? Do you anticipate that all products currently in use will be replaced by consumers over time?
  - c) What steps would you take to voluntarily recall the ‘decorative alcohol fuelled devices’ or fuel containers you have supplied that do not comply with any safety standard or permanent ban?
  - d) How long would your business need to comply with Option 2, 3, or 4? And why?

## 11. Glossary

Term	Definition
<b>ACL</b>	Australian Consumer Law, Schedule 2 of the <i>Competition and Consumer Act 2010</i> .
<b>European Commission Decision</b>	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.
<b>European standard</b>	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).
<b>Footprint</b>	The projected area beneath the device when placed on a horizontal surface in its normal operating configuration.
<b>US standard</b>	<i>UL 1370 Standard for safety – Unvented Alcohol Fuel Burning Decorative Appliances</i> A voluntary safety standard developed by Underwriters Laboratories Inc. (UL).