Australian Competition & Consumer Commission

Review of mandatory safety standard for sunglasses

Consultation paper

September 2016

Disclaimer

The Australian Competition & Consumer Commission (ACCC) has developed this consultation paper to seek the views of stakeholders about the mandatory safety standard for sunglasses.

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1. Introduction

The ACCC is reviewing the mandatory safety standard for sunglasses. We are seeking input from industry, testing authorities and any interested party on the proposed change, and on the timing of when it might take effect.

This consultation paper considers four policy options and discusses our proposal to update the mandatory standard for sunglasses. The ACCC considers Option 3 offers the best net outcome for business and consumers. This option would change the reference in the mandatory standard from the 2003 version of the voluntary Australian standard AS/NZS 1067:2003 *Sunglasses & fashion spectacles* (AS/NZS 1067:2003) to the latest (two part) edition AS/NZS 1067.1:2016 *Eye and face protection - sunglasses and fashion spectacles* and AS/NZS 1067.2:2016 *Eye and face protection - sunglasses and fashion spectacles – Test methods* (AS/NZS 1067:2016).

Option 3 is a minor change as it retains existing safety requirements and involves no change in administrative effort or compliance costs.

The consultation process outlined in this paper may be the only opportunity for you to provide input into this review.

You are encouraged to make submissions.

2. Policy options

The ACCC is considering four policy options:

Option 1	Keep the current mandatory safety standard (status quo).
Option 2	Revoke the mandatory safety standard.
Option 3	Adopt the updated voluntary Australia/New Zealand standard.
Option 4	Allow compliance with the updated voluntary Australia/New Zealand standard or trusted international standards.

3. Background

3.1 Sunglasses in Australia

Most Australians own at least one pair of non-prescription sunglasses. They typically use them for cutting out glare and ultraviolet radiation (UVR), as a fashion accessory, for driving, or for a combination of these reasons.

Sunglasses are widely available from stores selling general merchandise to specialised kiosks and optometrists, as well as online. There are two known manufacturers of sunglasses in Australia, and 150 to 200 wholesale suppliers importing over 1000 brands. The market is dominated by a small group of large global companies specialising in optical dispensing services and sunglasses retailing. The largest of these is the Italian Luxottica Group, which is the world leader in the mid to premium value market sector which can retail for $100's to $1,000's per pair. Sunglasses sold at the budget end of the market sell for between $5 and $30 and are frequently unbranded or bear little-known brand names.

3.2 Sunglasses and injury

Australia, the European Union (EU) and the United States (US) all mandate requirements for sunglasses in recognition of the safety hazard posed by sunlight. China is in the process of regulating sunglasses.

It is difficult to quantify the level and seriousness of injury prevented in Australia and overseas by the standards, as the damage accumulates over time. Long-term exposure to UVR increases the risk of cataracts and irreversible damage to the retina, eye inflammation, pterygium (abnormal tissue growth over the eye) and eyelid cancers. According to the Skin Cancer Foundation, eyelid cancers account for 5 to 10 per cent of all skin cancers in the US and it recommends the use of sunglasses to prevent eyelid cancers[1].

Wearing sunglasses that absorb visible light but not UVR is more damaging than not wearing sunglasses at all. A person not wearing any sunglasses will naturally squint in the light and pupils constrict, which lessens the amount of UVR that passes through to the retina compared to while wearing sunglasses, where the pupils are dilated. Such glasses may fail the requirements of the standard as they may not be suitable for driving. Wearing the incorrect type of sunglasses can also impair vision in low light and reduce the ability of colour vision impaired people to distinguish the colour of traffic signals, creating a safety hazard while driving.

3.3 The mandatory safety standard

The safety standard for sunglasses came into effect on 1 July 1985 and was last amended 25 August 2005. The requirements in the mandatory standard are based on those in the voluntary standard AS/NZS 1067:2003[2].

The mandatory standard requires sunglasses, fashion spectacles and polarized lenses to be labelled by category, and includes construction and design requirements. Sunglasses provide varying levels of protection from the harmful effects of glare and UVR. Fashion spectacles that do not provide protection must say this on the label.

The labelling of lens categories enables consumers to select the appropriate glasses based on the level of protection and their suitability for different applications, such as for fashion or indoors only, driving or high glare sporting activities.

The standard covers one-piece visors, clip-on and children's sunglasses, but not toy glasses, ski goggles or personal protective equipment (PPE) for occupational or medical use, or prescription lenses.

The ACCC commissioned a survey in 2013 on consumer awareness of the role of sunglasses in protecting them from sun exposure and its impact on their purchasing decisions. The research found consumers considered the labels providing guidance on lens classification to be useful and important. Around 60 per cent were aware of the classifications and 79 per cent of those said the information would influence their choice of sunglass purchase. Consumers weighted safety as an equally important factor as other factors in 63 per cent of responses, and 30 per cent said safety was the most important factor in the purchase.

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1 www.skincancer.org/prevention/sun-protection/for-your-eyes/the-eyelids-highly-susceptible-to-skin-cancer accessed 1 August 2016.

2 The mandatory standard does not adopt Amendment No 1 of 24 June 2009 to AS/NZS 1067:2003.

3.4 Reasons for the change

We review mandatory standards periodically to verify they are effective, up to date and remain relevant. Since the safety standard was last reviewed in 2005, the voluntary standard AS/NZS 1067:2003, on which the mandatory standard is based, was revised and updated in 2016.

The revised AS/NZS 1067 clarifies and simplifies requirements and makes editorial changes to harmonise more closely with the relevant International Standards Organisation (ISO) standard.

The ACCC proposes to amend the mandatory standard to reference the latest voluntary standard, AS/NZS 1067:2016, in order to keep the regulation relevant, avoid confusion and facilitate compliance.

3.5 The voluntary Australian/New Zealand standard

The Australian standard (AS 1067) was developed in 1971 and is generally accepted as being the first voluntary standard for general use sunglasses in the world, becoming a joint Australian/New Zealand standard in 2003. An American, and a French standard - now obsolete, soon followed.

The latest version of AS/NZS 1067 was drafted to closely align with the structure, terminology and requirements of the International Standard ISO 12312-1:2013 (E) *Eye and face protection -- Sunglasses and related eyewear -- Part 1: Sunglasses for general use* (the ISO standard).

The standard was divided into two parts to follow the structure of the ISO standard. Part 1 focusses on the scope, requirements and labelling requirements for sunglasses and Part 2 specifies the methods for testing and is identical in content to ISO 12311:2013 *Personal protective equipment—Test methods for sunglasses and related eyewear*.

The revised AS/NZS 1067:2016 retains existing differences to the ISO standard on UVR protection, the filtration of blue light, and labelling. These differences are discussed below.

4. Adopting international standards

The ACCC has assessed the ISO standard used in Europe and the US ANSI Z80.3-2015 *Non-prescription sunglass and fashion eyewear requirements* (the ANSI standard) against the following criteria to determine whether these international standards are appropriate for use in the revised mandatory safety standard:[3]

- Addressing safety concerns: Is there evidence that the international standard provides an acceptable level of consumer safety?
- Comparable jurisdiction to Australia: Is the international standard published or developed by a legitimate standards body or government agency from an economy or nation with comparable economic and regulatory processes to Australia?
- Applicability to the Australian context: Is the international standard applicable and sufficient in the Australian context?

[3] ACCC, International standards for the safety of consumer products - criteria for acceptance, ACCC policy principles, 22 July 2015, www.productsafety.gov.au/content/index.phtml/itemId/1014180

4.1 The ISO standard

Addressing safety concerns

The EU mandates requirements for sunglasses under the Personal Protective Equipment Directive 89/686/EEC and compliance with the ISO standard satisfies conformity to the requirements under the Directive.

The ISO requirements for UVR and blue light filtration result in a lower level of safety, and its labelling requirements, may be insufficient for Australian conditions.

Comparable jurisdiction to Australia

The International Standards Organization (ISO) standard applies in comparable jurisdictions to Australia.

Applicability to Australia

Ultraviolet light radiation

The performance requirements in the ISO standard provide protection against harmful UVR to a maximum wavelength of 380 nanometres (nm). AS/NZS 1067:2016 provides protection to a higher wavelength of 400 nm.

The existing Australian requirements for UVR are consistent with those of the peak international health and safety bodies which recommend a maximum wavelength of 400 nm. These include the International Commission on Non-Ionizing Radiation Protection (ICNIRP), the Commission Internationale de l'Éclairage (CIE), and the American Conference of Governmental and Industrial Hygienists (ACGIH). The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is a member of the ICNIRP scientific committee. ARPANSA advised the ACCC that guidelines advocated by the ICNIRP are trusted international standards.

Expert members of Standards Australia Technical Committee CS-053, *Sunglasses*, cite Australia and New Zealand as warranting extra protection against UVR than northern hemisphere countries because of our much higher levels of UVR. There are several geophysical reasons for the higher UVR that means Australians are exposed to more UVR than northern hemisphere residents are. Up to 40 per cent of UVR energy sits within the 380-400 nm range.

Young eyes are particularly susceptible to damage if exposed to UVR wavelengths above 380 nm and the damage may be permanent. Higher UVR and increased exposure (hours in the sun) are the main factors for concern that the ISO standard may offer a lower level of safety for Australians.

An industry expert advised the ACCC that notwithstanding the nominally lower threshold applying internationally, in practice sunglasses from overseas generally provide protection from UVR up to the 400 nm threshold, so there is no additional burden for lens manufacturers.

Requirements for blue light filtration

The ISO standard has lower requirements for blue light filtration than the levels in AS/NZS 1067:2016. Blue light filtration reduces the capacity of people with impaired colour

vision to detect and recognise road traffic signals, potentially resulting in increases in reaction time and incorrect responses.[4]

Low levels of light and lenses that transmit little or no blue light affect the ability of people with colour impaired vision to distinguish colours, particularly for older incandescent type traffic signals. In Australia, approximately 8 per cent of males and 0.4 per cent of females have some degree of colour impaired vision, making this a potentially significant road safety issue, though these drivers may be able to compensate under most driving conditions[5].

Sunglasses labelling

The ISO standard sets labelling requirements for sunglasses by categories that are broadly equivalent to the mandatory standard. However, the ISO standard permits the use of symbols only. The mandatory standard requires the description of the categories and usage information to be in English text.

Assessment

The requirements for UVR and for blue light filtration are lower in the ISO standard than in AS/NZS 1067 and are assessed to be inadequate for Australian conditions.

4.2 The ANSI standard

Addressing safety concerns

Sunglasses in the US are regarded as medical devices under the Federal *Food, Drug, and Cosmetic Act*. They are required to conform to labelling requirements for medical devices and performance requirements based on the ANSI and relevant ISO standards in the regulations administered by the Federal Drug Administration (FDA). The FDA also provides guidance for safety labelling, such as statements regarding suitability for driving, which are optional. The ANSI standard is comparable to the ISO in principle and substance except that is does not address safety labelling.

The requirements for UVR and blue light filtration in the ANSI standard and the absence of safety labelling give rise to concerns that use of the standard would result in a lower level of safety in Australia.

Comparable jurisdiction to Australia

The American National Standards Institute (ANSI) standard applies in a comparable jurisdiction to Australia.

Applicability to Australia

The ANSI standard includes similar performance requirements for UVR wavelength limits as the ISO standard, namely that of 380 nm. The ANSI requirement for blue light filtration is less strict than the ISO standard or AS/NZ 1067:2016 and can result in tints that are not suitable for driving, but it has no requirement to label lenses as such.

[4] Dain, Stephen and Wood, Joanne and Atchison, David A. (2009) *Sunglasses, traffic signals, and color vision deficiencies*. Optometry and Vision Science, 86(4). pp. 296-305, American Academy of Optometry.

[5] http://www.visioneyeinstitute.com.au/article/colour-blindness/ accessed 15 August 2016.

Assessment

The ANSI standard requirements for UVR and blue light filtration are less than those for the ISO standard, which are less than those under AS/NZS 1067, and are assessed to be inadequate for Australian conditions.

4.3 Chinese, South African and Brazilian standards

China is in the process of regulating sunglasses and a voluntary standard is expected to be published in 2016 based on the ISO standard with some variations.

The following standards have not been assessed for suitability in Australia:

- The South African National Standard SANS 1644:2007 (Ed. 1.02) (reconfirmed 01/01/2014) *Lenses for sunglasses and fashion spectacles - Safety requirements.* This standard has a UV limit of 400 nm and has requirements for colouration limits used in the AS/NZS 1067 pre-2003. Labelling and testing requirements would need to be addressed in considering suitability for Australia.
- The Brazilian National Standard NBR ISO 12312-1:2015 *Eye and face protection - Sunglasses and related eyewear - Part 1: Sunglasses for general use* is identical to ISO 12312-1:2013 AMD 1 2015. The requirements of this standard would give rise to similar issues as those raised by the ISO standard.

5. Detailed description of policy options

Option 1 - Keep the current mandatory standard (status quo)

Description

The mandatory safety standard would continue to reference specified requirements of AS/NZS 1067:2003 and not be amended or updated.

Benefits

Consumers would have the same level of protection they have now. There would be no increase in costs to business, at least in the short term.

Limitations

The AS/NZS 1067:2003 is out of date. The adjustments to the 2016 version of AS/NZS 1067 which are intended to be easier to follow and to reduce differences with the ISO standard would not be incorporated into the regulation.

Stakeholders have advised the ACCC that there are issues interpreting sections of AS/NZS 1607:2003. These issues have been resolved in the recent amendments to the Australian/New Zealand standard.

Over time, suppliers may be unable to have sunglasses assessed against AS/NZS 1607:2003. This will create difficulties in meeting demand in Australia.

Option 2 - Revoke the mandatory safety standard

Description

If the mandatory safety standard was revoked, sunglasses would not be required to conform to specific requirements or to carry specific information or warnings.

Australian Consumer Law provisions for goods to be of acceptable quality and that claims and product descriptions are accurate would continue to apply. The ACCC would still be able to take action about safety issues if needed; for example, through compulsory recalls.

Benefits

Suppliers would be able to sell sunglasses that met any standards or did not conform to any standards. This is likely to increase the range of products available and reduce prices.

The general provisions of the Australian Consumer Law would apply. Supply of sunglasses found to be unsafe could be stopped and a recall required and action taken where suppliers provide false or misleading claims.

Limitations

Sunglasses may be supplied to Australian consumers that do not conform to any reputable standard.

Consumers will not necessarily be prompted to think about or be informed about the level of protection or the suitability of sunglasses for specific tasks.

Supply and use of sunglasses that conform to standards other than AS/NZS 1067 could increase consumers' use of sunglasses with lower or no UVR protection and use of sunglasses that are less suitable for specific tasks (such as driving).

The general provisions in the Australian Consumer Law and market forces may not provide sufficient direction and incentive, and unsafe sunglasses may be supplied and may be difficult to identify.

The costs of manufacture are likely to be lower for companies supplying unsafe products and this may create pressure on other businesses to lower costs. Increased use of sunglasses with inadequate UVR protection may contribute to an increase in the rate of vision loss, cataracts and eyelid cancers.

Option 3 – Adopt the updated voluntary Australian standard

Description

The mandatory safety standard would be revised to include provisions of AS/NZS 1067:2016 in order to:

- maintain currency of the mandatory standard
- minimise differences between the ISO and AS/NZS standards
- clarify terms and test methods to facilitate interpretation and increase consistency and compliance

- clarify requirements to label sunglasses with category information at point of sale to address online supply.

Benefits

The revised mandatory safety standard would minimise differences with international requirements making testing easier and cheaper for suppliers.

This option would remove uncertainty over changes in safety by retaining existing requirements for UVR (400 nm) and blue light filtration.

Limitations

The existing range of products would not be affected. It is possible that there would be a marginal constraint on the growth or the range of sunglasses supplied in Australia and this may limit downward pressure on prices.

Option 4 - Allow Australian or trusted international standards

Description

The revised mandatory safety standard would allow the supply of sunglasses that meet the specified requirements of any of the nominated standards - AS/NZS 1067:2016, the ISO standard or the ANSI standards.

Benefits

Most sunglasses are imported. Allowing suppliers to source and sell sunglasses that comply with trusted international standards may reduce compliance or administration costs for suppliers and make it easier for suppliers to offer more products and increase consumer choice.

Testing to trusted international standards may be less expensive than testing for compliance with Australian standards. This cost saving may be passed on in the form of cheaper sunglasses.

Limitations

The requirements of the different standards are not precisely the same and do not take into account Australian conditions which are relevant to the safety of sunglasses. This may result in some sunglasses that are less safe, or have inadequate labelling so that consumers may not be able to identify lenses that are unsuitable for driving.

This may result in increased road accidents and UVR related eye injuries and cancers over time.

6. Preliminary position

The ACCC's preliminary position is that updating the mandatory standard to incorporate reference to the latest voluntary standard, AS/NZS 1067:2016 (Option 3), is the most appropriate option.

This update would leave safety-related requirements for UVR and blue light filtration unchanged, impose no additional burden on suppliers, minimise the differences between the AS/NZS and ISO standards, and maintain the currency of the mandatory standard.

Stakeholder submissions on this consultation paper will assist in testing this position.

7. Transition period

The ACCC invites stakeholders to make submissions about how long a new regulation should allow for existing stock to be sold. Stakeholders should also advise how long they would need to source stock that would meet AS/NZS 1067:2016 (option 3).

8. Consultation questions

1. Do you support our preliminary position to adopt the updated AS/NZS 1067 (Option 3)?
2. As discussed in section 7, how long a transition period should be applied to sell existing stock and source new stock?
3. Are there other viable options for the review not discussed in this paper?
4. The ACCC considers that adopting the updated AS/NZS 1067 (Option 3) will involve minimal difficulty and cost to suppliers. Is this correct?

   If you believe there will be significant additional costs, please indicate for what and how much.
5. Do you have any other comments or information relevant to this review?

9. Have your say

The ACCC invites stakeholders and interested parties to comment on these policy options.

Consultation is open from Friday 30 September 2016 to Friday 11 November 2016.

The ACCC prefers submissions via the ACCC consultation hub at consultation.accc.gov.au.

The ACCC will alert stakeholders and interested parties to the consultation through the Product Safety Australia website www.productsafety.gov.au/ and www.business.gov.au.

Alternatively, email submissions to productsafety.regulation@accc.gov.au or via post:

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Submissions will be published on the ACCC website at the end of the consultation period.

Please note any information that you believe to be of a confidential nature should be clearly marked or identified as confidential. The ACCC will not disclose the confidential information to third parties, other than advisors or consultants engaged directly by the ACCC, without first providing you with notice of its intention to do so, such as where it is compelled to do so by law.

Glossary

Term	Definition
ANSI standard	ANSI Z80.3-2015 *Nonprescription sunglass and fashion eyewear requirements*
AS/NZS 1067:2003	AS/NZS 1067:2003 *Eye & face protection - sunglasses & fashion spectacles*
AS/NZS 1067.1:2016	AS/NZS 1067.1:2016 *Eye & face protection - sunglasses & fashion spectacles*
AS/NZS 1067.2:2016	AS/NZS 1067.2:2016 *Part 2: Test methods*
ISO standard	ISO 12312-1:2013 (E) *Eye and face protection -- Sunglasses and related eyewear -- Part 1: Sunglasses for general use*
nm	Nanometre – 10^{-9} metres