

**Asda Sun System
Protection Lotion SPF 15**

Price £3

OUR SPF RATING 24

OUR UVA RATING High

OUR WATER RESISTANCE
RATING SPF 12.9

which?
**BEST
BUY**

which?
**EXCEPTIONAL
VALUE**

**Superdrug Solait Sunshine
Defence Lotion SPF 15**

Price £7.97

OUR SPF RATING 14.5

OUR UVA RATING High

OUR WATER RESISTANCE
RATING SPF 10

which?
**BEST
BUY**

SAFE
SUN PROTECTION

which?
**BEST
BUY**

**Hawaiian Tropic
Protective Sun Lotion
SPF 15**

Price £10.76

OUR SPF RATING 16.9

OUR UVA RATING High

OUR WATER RESISTANCE
RATING SPF 10.7

which?
**BEST
BUY**

which?
**BEST
BUY**

**Nivea Moisturising
Sun Lotion SPF 15**

Price £10.99

OUR SPF RATING 15.3

OUR UVA RATING High

OUR WATER RESISTANCE
RATING SPF 10.6

**Boots Soltan Moisturising
Suncare Lotion SPF 15**

Price £8.99

OUR SPF RATING 14.2

OUR UVA RATING High

OUR WATER RESISTANCE
RATING SPF 11.6

Best sunscreens

IN BRIEF

In this report we help you to:

■ avoid sunscreens that don't pass our SPF testing

■ make the best use of sunscreen to give you the highest chance of preventing skin damage.

Best Buy sunscreens start at just £3 – but we have concerns about some products that didn't pass our SPF tests

Even if you're holidaying at home this summer, you should still use sun protection.

On a clear summer's day in the UK, the UV index (the strength of ultra-violet light on a scale of one to ten) regularly reaches seven – a high risk of sunburn for most of us. Even when the UV index is as low as three, those with the fairest skin can burn.

All the sunscreens we've tested are designed to protect against two types of ultraviolet radiation – UVA and UVB.

Sunburn – mainly associated with UVB – is strongly linked to several types of skin cancer, including the most serious and least treatable – cutaneous malignant melanoma (often known simply as melanoma).

The World Health Organisation (WHO) says there's growing evidence that UVA is also linked with skin cancers, and the EU recommends that sunscreens provide a minimum level of protection against UVA rays as well as providing UVB protection.

We would recommend that you avoid using any sunscreen that hasn't passed our UVA and UVB tests – this applies to four well-known brands in our test.

Best Buys

All Best Buy SPF 15 sunscreens offer at least SPF 12.5 (this allows for variation between skin types and the difficulty of measuring redness in our tests).

They also offer a high level of UVA protection – labels state only that the minimum requirement has been met –

SPF problems

These four sunscreens didn't meet our SPF 15 requirements in testing. See 'Test the difference', p28.

Marks & Spencer Sensitive Moisturising Lotion SPF 15

OUR SPF RATING 9.3
OUR UVA RATING High
OUR WATER RESISTANCE RATING SPF 8

Malibu Protective Sun Lotion Spray SPF 15

OUR SPF RATING 12.1
OUR UVA RATING Medium
OUR WATER RESISTANCE RATING SPF 3.6

Wilko Suncare Moisturising Sun Lotion SPF 15

OUR SPF RATING 9.8
OUR UVA RATING Medium
OUR WATER RESISTANCE RATING SPF 5.9

Tesco Sun Protection SPF 15

OUR SPF RATING 9.6
OUR UVA RATING High
OUR WATER RESISTANCE RATING SPF 7.2

and retain an SPF of at least 10 after water resistance tests. Prices are for a 200ml bottle.



Sunscreen can be expensive but, at just £3 a bottle, Asda's Best Buy sunscreen is our top performer. It also has excellent water resistance for dips in the pool or sea.

With regular special offers during the summer – such as three for the price of two – premium Best Buys such as Nivea (£10.99 a bottle) and Boots Soltan (£8.99) can also prove great value for money.

However, even when using the best sunscreen, it's important to apply the right amount, regularly, if you're going to fully protect yourself and your family – so check out our guide on p29.

Ones to avoid

Despite passing our UVA test, four sunscreens didn't meet our UVB requirements – that is, providing UVB

protection to an SPF of at least 12.5. For the second year running, the Marks & Spencer, Tesco and Malibu sunscreens we tested didn't manage to provide the sun protection factor of 15 claimed on their labels – and nor did Wilkinson's Wilko sunscreen. We alerted all these companies to our findings – and address their responses on p28.

Others we tested

Five other SPF 15 sunscreens met our SPF requirements for UVB and the minimum requirements for UVA. However, they're not Best Buys as their UVA protection and/or their SPF didn't match the best on test.

These are: Garnier Ambre Solaire Moisturising Protection Milk; L'Oreal Solar Expertise Advanced Protection Lotion; Sainsbury's Sun Protect Lotion; Avon Bronze Sun Spray Lotion; and Piz Buin In Sun Lotion.

WHICH.CO.UK

For details on chemicals found in sunscreens go to

www.which.co.uk/sunscreens

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Test the difference

Some retailers whose sunscreens didn't pass our SPF test sent us their own test results that suggest stronger performance. But we've found that industry guidelines could allow for less robust testing

How we test

UVB We test the UVB sun protection factor (SPF) of every sunscreen to strict international standards, using the test endorsed by EU recommendations on sunscreen labelling.

We apply sunscreen to a small test area on the backs of 12 volunteers, expose them to UVB rays from a special lamp that simulates sunlight

and record when their skin turns red.

We compare the smallest UVB doses needed to turn skin red, with and without the product, to get the SPF.

WATER RESISTANCE

For an SPF 15 sunscreen to have 'medium' water resistance, its SPF after being exposed to water must be at least 10, which

we measure on skin as part of the UVB test.

We use a special shower head that provides a constant flow of water and simulates the effect of swimming.

UVA To test UVA protection, we apply sunscreen to glass plates, shine a special light through the plates and measure the amount



of UVA radiation absorbed by the sunscreen. From this, we calculate the UVA protection factor (UVA-PF). EU recommendations

require the UVA-PF to be at least a third of the SPF claimed on the bottle – so an SPF 15 sunscreen needs a UVA-PF of at least 5, which we rate as 'medium' UVA protection.



What the companies say

TESCO Told us it had tested the same batch of sunscreen that we tested, at two different laboratories, and that the SPF was measured at 17.3, compared with the 9.6 we recorded.

MARKS & SPENCER Said it was confident in the

performance of its sunscreen, which it had also tested at two labs, and found it exceeded SPF 15. We measured the SPF at 9.3.

WILKINSON'S Stated that it launched an immediate investigation after receiving our

results and it remained confident about the results from its own independent testing. The company believes its product remains effective and that it meets its SPF claim.

MALIBU Didn't respond to the results we sent.

Why the difference?

GUIDELINES We've seen test results from Tesco, Marks & Spencer and Wilkinson's sunscreens. Their UVB tests meet the same guidelines that we follow – those of Colipa, the European Cosmetic, Toiletry and Perfumery Association.

But, we believe that weaknesses in Colipa's guidelines mean that some testing might not meet our rigorous standards.

MEASURING UVB We believe, for example, that a sunscreen's failure to pass our UVB test could relate to inaccuracies of measuring in the manufacturers' tests.

As the guidelines allow, they measure UVB doses in units of time. But we strongly believe that it's more accurate to measure in units of energy – and we think that Colipa should also require this.

Colipa's guidelines

also allow different equipment to be used. Such variation could also account for the differences in results.



TEST RESULTS For the second year running, three sunscreens have failed our UVB tests even though they

say that their testing follows the same guidelines that we do (and Wilkinson's also failed this year). We think this is because the guidelines allow for too much variation.

We stand by our results and feel that Colipa should review its testing guidelines – as sunscreens are designed to protect consumers' health. We'll be contacting Colipa with our test findings.

HAT

A hat with a wide brim offers good protection for your eyes, ears, face, the back of your neck and shoulders. Go for a brim around four inches wide, made of tightly woven material. Don't wear a hat that permits light to shine through its fabric – loosely woven straw hats give little protection.

SUNGLASSES

Sunglasses labelled with a '100% UV protection', 'UV 400' sticker or the European 'CE mark' provide the most protection. Don't assume that dark glasses are the most protective – many sunglasses with light-coloured tints, such as green, amber, red, and grey offer the same UV protection as very dark lenses. Toy sunglasses for children may offer no protection, so be sure to look for the UV protection label.

CLOTHING

Clothing can also help protect you from UV rays. Tightly woven, light-coloured, lightweight fabrics will provide you with the most comfort and protection.

**LEGS/ARMS/
HANDS/FEET**

If you're going to be in the summer sun for any more than 15 minutes, cover exposed skin with sunscreen. Use the 'two finger rule' (see right) to make sure you use the right amount.

How to use sunscreen



In our last test of sunscreens (Which?, June 2008, p28), swimmers at an outdoor pool revealed that they would typically use between just a quarter and half of the amount required to get the protection advertised on the bottle.

And using less sunscreen reduces protection disproportionately – half the required amount will give just a third of the SPF protection shown.

The right amount

In the face of often vague usage instructions, try the 'two-finger rule'. Squeeze sunscreen along the length of your first two fingers and use this much on each of these body areas: neck and face; each arm; upper back and shoulders; lower back; chest; stomach; each upper leg; each lower leg; and, if you're bald, your head.

Alternatively, apply the amount you feel comfortable with, apply another layer within half an hour, and stay in the shade for at least 15 minutes after applying each layer. You could also go for a sunscreen with an SPF three times higher than the one you'd normally choose.

If you follow these rules, you shouldn't need to reapply unless you've been swimming or have sweated a lot.

Tips for swimmers

Water resistant doesn't mean waterproof. All sunscreens we tested claim to be water resistant but none had the same SPF after our water resistance test. Asda's was the best, with an SPF of 13 after the test, though all our Best Buys retained an SPF of at least 10. It's still a good idea to reapply sunscreen after you've been in the water. The most water resistant sunscreens bind well to the skin and are least likely to rub off while towelling yourself dry – they can be more sticky, however.

If you're applying sunscreen to children before they go to school in the morning, go for one with high water resistance for the best chance of it lasting until lunchtime, when the sun's at its strongest.

Sun exposure

While SPF 30 sunscreens absorb 97% of UV radiation, the World Health Organisation (WHO) says that there is 'inadequate' or 'limited' evidence that sunscreens protect against the main skin cancers. The WHO says its main concern is that sunscreen encourages people to spend more time in the sun than they would if they weren't wearing it. Too much sun exposure – whether sunbathing or working outdoors – should be avoided by seeking shade and covering up with clothing.

Vitamin rich

We don't need to sunbathe to keep up our vitamin D levels – crucial for healthy bones. For most people, around 15 minutes of exposure a day on the hands, arms and face during the summer is enough.