

Burning issues

Sun screen is an essential part of sun protection but we've uncovered four products that could be putting your skin at risk

We all know the importance of protecting ourselves from the sun, but *Which?* has discovered that using sun screen with a high sun protection factor (SPF) doesn't always guarantee peace of mind.

In our tests, four sun screens failed to meet the SPF15 promised on the label. Malibu and Wilkinson's failed badly, giving protection of only SPF6.9 and SPF6.3 respectively. Boots Soltan and Asda also failed, giving protection of SPF8.7 and SPF11.5 respectively.

People rely on sun screen labels, so these failures could have serious health implications. An SPF of 15 will give you more than 90 per cent protection against UVB rays. But if your sun screen actually has an SPF of only seven, you risk damaging your skin by unwittingly soaking up too much sun.

The best way to be sure you're getting proper protection is to choose one of our Best Buy products (see p30).

Our test results indicate that, when it comes to sun screens, you get what you pay for. Ambre Solaire, Lancôme, L'Oréal and Piz Buin all exceeded SPF15 in our tests. They cost upwards of £10 a bottle.

The dangers

Ultraviolet (UV) rays from the sun can damage our skin, causing painful sunburn and premature ageing. More seriously, exposure to both UVA and UVB rays can cause skin cancer, of which malignant

In our tests four sun screens failed to meet the SPF15 rating promised on their labels

melanoma is the most serious type. Cancer Research UK says cases have more than doubled over the past 20 years.

It's important to limit your exposure to the sun, especially when it is at its strongest between 11am and 3pm. And when you are out in the sunshine, make sure you protect your skin with a good sun screen.

There are two types of sun screen – chemical and physical (also called 'barrier' creams). Chemical ingredients (such as benzophenone-3 and octocrylene) soak up UV rays before they can damage the skin. Physical ingredients (such as titanium dioxide and zinc oxide) reflect UV light away from the skin. Many sun screens combine chemical and physical ingredients.

A sun screen's ability to block UVB rays is shown by its SPF factor. The higher the SPF, the more protection you get, although

you don't get much additional protection above SPF30. The star rating system developed by Boots is the UK's most common method of labelling UVA protection factor. One star shows 'minimum' and five stars show 'ultra' protection.

For maximum protection, it's important to use a 'broad spectrum' cream or lotion which offers high protection against UVA rays and also has a minimum SPF of 15.

The UVA protection afforded by the sun screens we tested ranged from satisfactory to excellent, but the reliability of their labelled SPFs was more varied.

The bright side

As long as you're careful, there's no need to hide from the sun completely. Sunlight is good for you in small amounts, as it is the body's main source of vitamin D.

'There must be clear and consistent laws to control these products and protect the public'

Serious vitamin D deficiency can lead to health problems such as osteoporosis and might also play a role in chronic illnesses such as multiple sclerosis.

Can you trust them?

Four of the sun screens we tested failed to provide the SPF15 claimed on the label.

All the manufacturers whose sun screens failed our tests disputed our findings, saying they contradicted the results of their own tests. Asda added that it had replaced the product we tested with a new formulation in March 2006.

We want manufacturers to take our test findings seriously and relabel, reformulate or withdraw these products.

Nigel Strick, Chairman of the Trading Standards Institute, shares our concerns. He said: 'At the moment, consumers have no guarantee about a sun screen from its label. This means that, despite using sun screens properly, they can still be at risk.'

In May the European Commission proposed banning misleading claims on sun screens and standardising the testing that's used to determine UVB and UVA labelling. It is likely to issue 'non-binding' recommendations to the industry later this year. Although we're pleased that it's taking action against misleading labelling, we're disappointed that the sale and marketing of sun screens will be left to self-regulation.

Nigel Strick agrees: 'There must be clear and consistent laws, with criminal sanctions, to control these products and protect the public.'

Our tests

How we got our SPF ratings

An independent laboratory tested the SPF of each of the 12 sun screens to strict industry standards.

Scientists applied the creams and lotions to at least 12 volunteers, exposed them to UVB rays and watched to see when their skins turned red.

UVA tests, on the other hand, involved the sun screens being applied to glass plates. Our testers then shone a light on to the plates and measured the amount of UVA radiation that the sun screens absorbed.

SUN SCREENS YOU CAN TRUST

The seven sun screens below passed our tests

We tested the protection of 12 SPF15-labelled sun screens against UVA and UVB rays.

To pass our UVB test, the sun screens had to have an average SPF of at least 12. This allows for variations between volunteers and the difficulty of measuring skin redness in our tests.

But we think manufacturers should ensure that, regardless of these variables, the average SPF is at least that stated on the bottle.

That's why all our Best Buys have an average SPF of 15 or more and at least a 'satisfactory' UVA protection rating.



WHICH?
BEST
BUY

GARNIER AMBRE SOLAIRE MOISTURISING PROTECTION MILK
Our SPF rating **18.1**
Our UVA rating **Good**
Standard price **£9.99 for 200ml**
Price for a one-week holiday^a **£24.48**



WHICH?
BEST
BUY

LANCÔME SOLEIL SOFT-TOUCH MOISTURISING SUN LOTION
Our SPF rating **16.7**
Our UVA rating **Good**
Standard price **£19 for 150ml**
Price for a one-week holiday^a **£62.07**



WHICH?
BEST
BUY

L'OREAL SOLAR EXPERTISE ADVANCED PROTECTION LOTION
Our SPF rating **17.8**
Our UVA rating **Good**
Standard price **£10.50 for 150ml**
Price for a one-week holiday^a **£34.30**



WHICH?
BEST
BUY

PIZ BUIN IN SUN
Our SPF rating **17.5**
Our UVA rating **Satisfactory**
Standard price **£11.99 for 200ml**
Price for a one-week holiday^a **£29.38**



NIVEA SUN MOISTURISING SUN LOTION
Our SPF rating **12.9**
Our UVA rating **Satisfactory**
Standard price **£10.25 for 200ml**
Price for a one-week holiday^a **£25.11**



SUPERDRUG SOLAIT SUNCARE SUNSHINE DEFENCE
Our SPF rating **12.4**
Our UVA rating **Excellent**
Standard price **£7.99 for 200ml**
Price for a one-week holiday^a **£19.58**



THE BODY SHOP PROTECT IT! SUN LOTION FOR BODY
Our SPF rating **12.6**
Our UVA rating **Satisfactory**
Standard price **£12 for 150ml**
Price for a one-week holiday^a **£39.20**

^a The price of sun screen for a one-week holiday assumes an average of 35ml of cream to cover one adult, with sun screen applied twice a day

SUN SCREENS SOLD ABROAD MAY NOT MEET SAFETY AND QUALITY STANDARDS

Tim Whittome 47, company director

Stock up on one of our recommended sun screens before you go away because, as *Which?* member Tim Whittome discovered, those sold outside the EU might not meet its rules on quality and safety.

Tim was badly burned after using a cream he'd bought in Mauritius. The cream was clearly labelled

SPF16 but Tim, from London, realised he was badly burnt just 90 minutes after applying it. He couldn't go out in the sun for another four days.

He told us: 'I don't think this cream gave me any protection at all.'

We tested the cream in a laboratory, and found it was unstable and offered 'considerable variability in protection'.

Under EU law, sun screens should be tested to prove they meet the labelled SPF. But this applies only to products sold in the EU, not those made there and exported for sale elsewhere.

The label on the cream Tim bought said it was made in Italy but, because it was sold in Mauritius, it's not subject to EU ruling.



Kids in the sun

Take extra care with children

Children have delicate skin and burn easily, so it's crucial they are well protected from the sun's rays.

Dr Catherine Harwood, a consultant dermatologist for Cancer Research UK, says: 'Baby and toddler skin is particularly susceptible as it is thinner and produces less protective pigment.'

Research shows that sunburn in childhood can greatly increase the risk of melanoma in later life.

We recommend that you:

- ✓ keep young babies out of direct sunlight
- ✓ cover young children with loose light clothing and keep them in the shade where possible
- ✓ use a sun screen with a minimum SPF of 15.

Checklist

How to enjoy the sun safely

- Try never to burn. Your skin could suffer irreparable damage.
- Don't rely on sun screen alone. The best protection is clothing and a hat, plus sunglasses for your eyes.
- Use your sun screen by its use-by date – it's generally effective for about 12 to 18 months from the date you buy it.
- Apply cream about 30 minutes before going out into the sun.
- Apply generous amounts of sun screen – about a golf ball-sized amount of cream (35ml) per adult. Using less could reduce the SPF of your cream.
- Reapply sun screen regularly throughout the day, particularly after swimming.
- Try to keep out of the sun between 11am and 3pm, when it is at its strongest.
- Report any changes in moles or unusual skin growths to your doctor for investigation.

SUN SCREENS THAT FAILED OUR TESTS

These lotions twice failed to provide a minimum average SPF of 12 in our tests. They may provide less protection than you expect



MALIBU HIGH PROTECTION LOTION

Our SPF rating **6.9**

Malibu says it has retested the lotion and found it exceeded SPF15.



BOOTS SOLTAN SUN LOTION

Our SPF rating **8.7**

Boots says it has retested the lotion and found it exceeded SPF15.



WILKINSONS WILKO SUN PROTECTION SYSTEM

Our SPF rating **6.3**

Wilkinson's says it will retest the lotion and expects it to pass.



ASDA SUN SYSTEM LOTION

Our SPF rating **11.5**

Asda says the lotion has been reformulated, but exceeded SPF 15 in its own tests.

What about Tesco?

Store's tests confirm our findings

We originally included Tesco's Sun Protection Lotion in our tests. The sun screen wasn't in the shops when we started testing, so Tesco sent us a bottle. We found it had an SPF of just 9.2.

But when we alerted the company to our findings, it said it hadn't tested the sun screen itself before sending it to

us. When Tesco did test the sun screen, it too found the SPF was nine.

Tesco says it has been selling the formulation we tested as SPF8.

The makers of the other Don't Buy sun screens have refuted our findings but we're pleased that Tesco took action when its product failed its tests.



Contacts

Cancer Research UK – Sunsmart campaign
www.cancerresearchuk.org/sunsmart

Trading standards
www.tradingstandards.gov.uk