



The safest way to handle your household's biggest energy saver



Product	Amount of Mercury	Number of Equivalent CFLs
CFL	5 milligrams	1
Watch battery	25 milligrams	5
Dental amalgams	500 milligrams	100
Home thermometer	500 milligrams - 2 grams	100 - 400
Float switches in sump pumps	2 grams	400
Tilt thermostat	3 grams	600
Electrical tilt switches and relays	3.5 grams	700

Trevor Milne President of IESSA, has the following safety guidance for CFL usage. Please follow the easy "Safe Disposal" tips in the panel and rest assured that you are doing your bit to protect the environment for generations to come.

- Drop off old CFLs at participating retailers who offer a take-back service, e.g. Woolworths, Pick n Pay, Makro
- Take care not to break the lamps. Drop off old CFLs at signposted electronic waste (eWaste) sites. Use municipal collection services for hazardous waste. These may be annual or more frequent – ask your local authority where these services are offered. Note: You can also dispose of batteries, oil-based paint and motor oil through these services
- Always store used CFLs in a safe place, in a nonbreakable container or plastic bag (to contain the lamp in the event of breakage) until they may be disposed of safely
- Only dispose of CFLs with general household waste as a last resort. In this case, wrap the bulb in newspaper and place it in a plastic bag to reduce the risk of breakage and potential contamination of other recyclable waste and to avoid physical contact with yourself or with waste removal staff

What do I do if a CFL breaks?

Although the accidental breakage of a lamp is unlikely to cause any health problems, it's good practice to minimise any unnecessary exposure to mercury, as well as risk of cuts from glass fragments.

The following guidelines are therefore recommended in the case of accidental breakage of a CFL:

- Open windows and allow air to circulate in the room
- Wear gloves, if available, as a precaution also against broken glass
- First sweep up all of the glass fragments and phosphor powder (do not vacuum)
- Place in a plastic bag
- Wipe the area with a damp paper towel to pick up stray shards of glass or fine particles
- Place the used towel in the plastic bag as well



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Long life CFLs for immediate and long-term savings

Worldwide, there's been a switch to the everyday use of energy efficient appliances and CFL lighting, one of the easiest ways to save electricity, money and, ultimately, reduce harmful emissions into the atmosphere.

Bold initiatives in Canada and Australia aim to see incandescent lights phased out by 2012. In the UK, over 39-million CFLs have been installed in houses to promote energy efficient lighting. South Africans too have seen the light, Eskom has fitted 43-million CFLs in homes across the country. This has resulted in a saving of 1800MW of electricity – the equivalent to half a power station! These lamps have lowered Eskom customers' electricity bills.

Why save electricity?

CFLs give off the same amount of light as standard incandescent lights, but use just 20% of the electricity. That means you can light up your home using one fifth of the electricity consumed by incandescent bulbs.

Eskom, in partnership with government and business, is urging all consumers to use less electricity wherever possible while we complete new power stations. Installing CFL lamps results in an immediate reduction in power use.

How can CFLs save the environment?

Using less electricity for the same amount of lighting means we can reduce our use of precious resources e.g. coal and gas, to produce energy for lighting.

How do they save you money?

Even though CFLs cost a little more than incandescent bulbs, you will more than recoup that cost in lower electricity bills. AND they last up to 10 times longer, so they don't have to be replaced as often.

How safe are they?

CFLs are perfectly safe to use in the home. Research conducted by several independent sources including the New Zealand Ministry of the Environment and the US Environmental Protection Agency have found that CFLs do not pose a health risk in the home if used properly.

While they do contain a tiny amount (less than 5mg) of mercury vapour, this amount is 100 times less than the amount of mercury in a silver tooth filling, 5 times less than the amount of mercury in a watch battery, and up to 400 times less than that contained in a thermostat.

In fact, the average amount of mercury in a CFL is about the size of the tip of a ballpoint pen, and no mercury is released when the lamps are in use.

Mercury vapour only poses a slight hazard in the unlikely event that a lamp breaks. Even then, if the broken lamp is handled properly, there should be no resulting health risks.

But CFLs can pose an environmental hazard if they are not disposed of properly, because they can find their way onto dump sites or in landfill sites. Therefore, it is important to treat CFLs as you would other hazardous products such as batteries, paint and electronic elements.

Interestingly enough, despite the presence of small amounts of mercury in CFLs, they actually provide significant environmental benefits because they result in the reduction of greenhouse gases. Why? Because CFLs use far less energy than incandescent bulbs, therefore, less carbon is released into the air by coal-fired power plants – the main source of electricity in South Africa.

This consumer CFL product and safety education advertorial by the IESSA is paid for by Eskom in support of consumers and planet earth