

Energy Saving Lamps and Mercury

Mercury is used in energy saving fluorescent lamps and is essential for converting electricity into light. No mercury is emitted from lamps when in use which is why they are safe, both in regard to human health and the environment.

1. Why do lamps contain small amounts of mercury?

Energy saving fluorescent lamps contain very small amounts of mercury in order to obtain optimum energy conversion in the light generation process.

Over the past 25 years, lamp manufacturers have developed innovative ways to increase lamp performance while minimising the use of mercury. The mercury content of lamps has therefore been reduced by more than 90%. Its presence is regulated by the European RoHS Directive¹, which permits small amounts of mercury (5 mg) to be used in energy saving fluorescent lamps. No other material has been found to replace mercury and reach comparable energy efficiency

Energy saving lamp technologies do not all need mercury. For instance, energy saving halogen lamps as well as most LED based lamps do not contain mercury.

2. Energy saving fluorescent lamps are safe to use

No mercury is released when lamps are in use.

Since energy saving fluorescent lamps are made of glass, care should be taken when handling them. Always screw and unscrew the lamp by its base, and do not forcefully twist the lamp into a light socket by its tube.

Breaking an energy saving fluorescent lamp is extremely unlikely to have any impact on your health. Proper cleanup and adequate ventilation minimize the impact even further. If a lamp breaks, switch off the electricity and ventilate the room for 20-30 minutes. Broken lamps should be removed, preferably with protective gloves, and be placed in a sealed plastic bag in the disposal bin. Avoid using the vacuum cleaner to remove the broken parts².

¹ RoHS is the acronym used to refer to the European Union (EU) Directive 2002/95/EC on the Restriction of the use of certain hazardous substances in electrical and electronic equipment.

² For further guidelines please read <http://www.epa.gov/mercury/spills/index.htm>

3. Recycling your lamps

Under the European Union's WEEE Directive³, the European Lamp Industry has established an EU-wide infrastructure for recycling lamps. Energy saving fluorescent lamps at end of life should not be thrown away with household waste, but can be returned free of charge by the consumer to the shop where they were bought, or deposited in local waste facilities. This allows the various materials they contain to be recovered and reused in new lamps or other products. More than 80 % of the material in lamps is recycled, resulting in fewer resources being needed to produce new goods.



Energy saving fluorescent lamps are labeled with a crossed out bin. This means that they should not be disposed of in household waste but should be brought back to the shop or to the local waste facilities to be recycled

Facts

- Not all energy saving lamps contain mercury. The level of mercury is not more than 5 mg for energy saving fluorescent lamps.
- More than 80% of an energy saving fluorescent lamp is recycled.
- Lamps can be returned to your local DIY shop or waste facilities.
- The electricity that is wasted powering an inefficient GLS lamp, and the mercury emitted by the power station, may account for more than double that contained in an energy saving fluorescent lamp.

³ The Waste Electrical and Electronic Equipment Directive (2002/96/EC) aims to minimize the impact of electrical and electronic goods on the environment