



COMPRESSED  
GAS



ENVIRONMENTAL  
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HEALTH HAZARD



HARMFUL

# CFL AND DISCHARGE LAMPS



## RESPONSIBILITY

The City of Cape Town has a dual responsibility when it comes to compact fluorescent lamps (CFLs), namely: promoting the saving of electricity and ensuring that used CFL and all other discharge lamps (eg. fluorescent tubes), are safely disposed of.

CFL and other discharge lamps contain small quantities of hazardous substances and need to be properly disposed of to prevent contamination of the environment.

The City, in collaboration with committed retailers like Woolworths, Pick n Pay, Builder's Warehouse and Makro, is putting into place systems which can be used to safely dispose of these products.

Should you be a user of CFL or other types of discharge lamps, please note the contents of this leaflet and do your part to remove these products from the normal waste stream and safely dispose of them.

## THE RISK

Discharge lamps like linear fluorescent tubes, compact fluorescent lamps (CFLs), high pressure mercury vapour lamps, high pressure sodium vapour and metal halide lamps all contain small quantities of mercury. Low pressure sodium and incandescent lamps do not contain mercury.

A typical discharge lamp contains mercury within the phosphor-coated glass tube. When electricity is switched on, the electrodes energise the mercury vapour causing ultraviolet (UV) light to be emitted. The UV light is absorbed by the phosphor coating and visible light is radiated. Different lamps contain various amounts of mercury varying between 5-30 mg mercury per lamp.

Discharge lamps contain small amounts of elemental mercury sealed within the glass tubing in addition to various other compounds and heavy metals. No mercury is released when the glass remains intact but when it is broken, mercury vapour will be released. However, due to the small amounts of mercury in the CFLs, short-term exposure to the mercury emitted from the broken bulb is unlikely to cause any ill health effect.

Discharge lamps should therefore not be thrown into the domestic waste bin but kept separately and stored safely until an opportunity for responsible disposal is available.

### APPLICABLE NATIONAL LEGISLATION PERTAINING TO MERCURY IN DISCHARGE LAMPS:

- Occupational Health and Safety Act, Act 85 of 1993
- South African National Standard, 10114-1:2005 (Part 1: Artificial Lighting of Interiors)
- Environmental Conservation Act, Act 73 of 1989
- National Environmental Management: Waste Act, Act 59 of 2008
- National Health Act, Act 61 of 2003

## PROPER DISPOSAL

The discharge lamps are crushed by registered and responsible hazardous waste treatment and disposal contractors. The used tubes are fed into a custom-made airtight crushing device that prevents the release of mercury vapour. The crushed lamps are pretreated with chemicals to make the mercury insoluble. The treated waste product is finally disposed of in a hazardous waste landfill.



# ACTIONS REQUIRED

## CONSUMER RESPONSIBILITIES

	BEST PRACTICE	KEY INFORMATION
<b>MAIN OBJECTIVE</b>	No discharge lamps must be put into the normal waste disposal process. They must be kept out of landfills.	General landfills are not permitted or designed to accommodate the release of mercury. Mercury needs to be treated to prevent a negative impact on the environment and human health.
<b>WHAT TO DO</b>	Do not put used discharge lamps with household waste. Keep CFLs safe until you can take them to dedicated drop-offs.	Ideally CFLs should not be broken and should be returned to their original packaging or wrapped in a plastic bag.
<b>DROP-OFF POINTS</b>	Discharge lamps can be taken to participating stores and retailers and drop-offs in your area.	Selected Woolworths, Pick n Pay, Builder's Warehouse and Makro stores currently offer collection points.
<b>SHOULD IT BREAK</b>	Should a discharge lamp break, follow these steps:	<ul style="list-style-type: none"> <li>• Fit gloves and goggles prior to cleaning.</li> <li>• Use stiff paper/cardboard (two pieces used together) to collect debris and place it in glass jar with a metal lid (or sealable bag, i.e. ziploc bag). Do not use a brush and scoop to clean up debris.</li> <li>• Use sticky tape to remove remaining fragments and powder.</li> <li>• Wipe area clean with damp paper towels. Place contaminated material into glass jar/plastic bag.</li> <li>• Do not vacuum the area as mercury vapour or powder can be spread to other areas via the vacuum cleaner.</li> <li>• Discard all cleaning material and gloves into the glass jar/plastic bag and pack into a box for disposal.</li> </ul>
<b>HOW TO STORE</b>	Used CFLs should ideally arrive at the drop-off point unbroken. The lamps should therefore be securely packaged in a safe container for transport and storage.	It is recommended that the packaging in which the lamps are bought, kept and used for this purpose. Alternatively, use the packaging of replacement lamps.
<b>HOW TO TRANSPORT</b>	Discharge lamps must be transported safely in a manner that will prevent breakage and minimise the risk to handlers for delivery at suitable disposal points.	It is suggested that discharge lamps be placed in their original packaging or empty packaging of the replacement lamps or wrapped in a thick sealable plastic bag. Transport discharge lamps in the rear of the vehicle while securely packed to prevent crushing. Do not keep them in the vehicle for an extended period of time.
<b>SHOULD IT BREAK DURING TRANSPORT</b>	Open your window immediately and pull over at the nearest safe location. Place the broken CFL pieces in a plastic bag and take it to the nearest drop-off centre.	Also wipe the car with a damp cloth and dispose of any glass fragments at your earliest convenience. Containment of the used lamps in plastic bags prior to transportation will greatly simplify cleaning up.



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**For more information contact: 0860 103 089 or go to [www.capetown.gov.za/solidwaste](http://www.capetown.gov.za/solidwaste)**

PLEASE NOTE: This leaflet is also available in Afrikaans and Xhosa on request.  
Hierdie pamflet is ook op versoek in Afrikaans en Xhosa beskikbaar.  
Esi sibhengezo siyafumaneka nangesiBhulu nesiXhosa xa siciliwe.

Making progress possible. Together.