

How to Recycle Lamps That Contain Mercury

Foundation Signatory

MANAGEMENT OF WASTE MERCURY-CONTAINING LAMPS¹

Waste management is primarily the responsibility of state, territory and local governments in Australia. Mercury is a toxic heavy metal and the disposal of products that contain mercury is managed differently in the different jurisdictions. If you are a householder, you should check with your State agency or local council to see what the arrangements are for disposing of household waste mercury-containing lamps in your area. Advice on the safe disposal of mercury-containing lamps is available at: www.fluorocycle.org.au

MAKING ARRANGEMENTS TO RECYCLE LAMPS THAT CONTAIN MERCURY

There are two recycling companies in Australia with facilities that process mercury containing lamps. One facility is in Sydney and one is in Melbourne. Waste lamps need to be collected and transported to one of these facilities. Businesses and organisations should make arrangements with a waste collection company that can give assurance that the lamps they collect will eventually be delivered to one of the recycling facilities. Many waste collection companies provide collection bins or boxes that are dedicated to waste mercury-containing lamps and can be installed at your premises. The Yellow Pages or the Internet will help you to identify the waste collection companies that operate in your area. Your business or organisation may be eligible to receive public recognition through the FluoroCycle scheme for recycling all of its waste mercury containing lamps.

FLUOROCYCLE

FluoroCycle is a national, voluntary scheme that is supported by all Australian governments. The scheme started operations on 21 July 2010 and is designed to increase recycling of mercury-containing lamps in Australia - and reduce the number going to landfill. FluoroCycle is focussing initially on the commercial and public lighting sectors, as these sectors are collectively the largest consumers of mercury-containing lamps, accounting for approximately 90 per cent of lighting waste.

LAMPS THAT CONTAIN MERCURY

A variety of lamps used in Australia require mercury to operate. Generally, the higher the power usage or wattage, the more mercury required to operate the lamp. The more common mercury-containing lamps are described below.

- 1 Compact fluorescent lamps (CFLs) contain no more than 5mg of mercury and are used mostly in homes.
- 2 High intensity discharge (HID) lamps contain between 50mg and 1000mg of mercury.
- 3 Linear fluorescent tubes contain no more than 15mg of mercury and are used in most commercial and public buildings.

Mercury-containing lamps are not manufactured in Australia; they are all imported. Approximately 52 million² mercury-containing lamps, of all types, were imported into Australia in 2008.

THE RECYCLING PROCESS

In the recycling process, all components of mercury-containing lamps are recovered and separated, ready for re-use in the manufacture of other products, producing minimal waste. Mercury-containing lamps are crushed. The crushed material is then sorted into individual components: glass, aluminium, other metals, plastics and the mercury containing phosphor powder. The mercury is recovered from the phosphor powder and is mainly used for dental amalgam; the phosphor powder is also used in fertiliser. The glass and metals are used in the manufacture of various products.

¹ In this context, 'lamp' means the glass component of a light fitting, eg the globe or fluorescent tube.

² This figure is based on import data from the Australian Bureau of Statistics and excludes 'other discharge lamps' and lamps in fittings because these lamps may, or may not, contain mercury.



FluoroCycle