



EucoLight – LightingEurope Platform on Article 15 WEEE Directive - Product Sheet on Product Categories

Introduction

The lighting industry, represented by such industry associations as EucoLight (representing European lighting WEEE compliance schemes) and LightingEurope (representing manufacturers of lighting products, equipment and luminaires) has long been involved with the recycling of lighting products and equipment. For example, it played an influential role in the development of the Waste Electrical and Electronic Equipment (WEEE) Directive.

The WEEE Directive sets collection, recycling and recovery targets for several categories, including large household appliances, small household appliances and lighting equipment (lamps/LEDs).

In addition to the legal obligations established by the WEEE Directive, EucoLight and LightingEurope have collaborated to facilitate an exchange of information relevant to the recycling of lighting products. The present document aims to illustrate the information producers already provide for various lamp types and lighting products, based on the Art. 15 WEEE Directive requirements regarding the presence of substances, mixtures, components and other information needed to prepare a product for environmentally-sound recycling.

Disclaimer: The information contained within this document is meant to be used as an indication of what information recyclers need to have to ensure the correct treatment of lighting products. For more detailed information, please contact the manufacturers directly.

Category: LED retrofit lamp

Items to be removed from any separately collected WEEE

) Substances:

- **Glass and metal:** the glass tube used in an interchangeable LED lamp is manufactured from soda-lime glass. It is essentially similar, but not identical to, the glass used throughout the glass industry for bottles and other common consumer items. Internally, the support wires used in the lamp are made from nickel-coated iron or stainless steel, while the electrodes are made from tungsten. There are no known health concerns that result from exposure to the materials. The possibility of glass cuts is the primary hazard of broken lamps.
- **Plastics:** the plastic housing is typically made of PBT (polybutylene terephthalate) or PET (polyethylene terephthalate), which is polymer containing bromine and flame delayed plastic with antimony oxide.
- **LED:** retrofit LED lamps emit white light. The LED consists of metals, phosphorus, plastics and an InGaN (indium gallium nitride) semiconductor chip. Due to their insolubility and neutrality, these materials do not pose a significant safety threat.
- **LED electronic driver:** the LED electronic driver is built into the lamp's housing. The driver consists of elements that are substantially similar, but not identical, to those parts used throughout the electronics and general entertainment equipment industries.

Additional information needed to prepare components or whole appliances for environmentally-sound recycling:

Interchangeable LED lamps

-) Please refer to the provisions of local regulations to ensure compliance.
-) In European Union Member States, these lamps shall be disposed of and collected separately from universal waste. Lamps will be marked with the WEEE label, in compliance with Article 14(4) of Directive 2012/19/EU and European standard EN 50419.
-) All lamps meant to be sold shall meet the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment; RoHS; and of Directive 2006/1907/EC on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Special handling information for broken lamps

-) Use adequate safety glasses or goggles, puncture resistant gloves and protective clothing.
-) Avoid generating dust during clean-up.
-) Do not use standard vacuum cleaners during clean-up. Optionally, sweep up all particles using disposable gloves or wipe up with a damp cloth or

paper towel. Place all waste in a puncture-resistant closed container or double-bag. Dispose of materials according to local regulations.

-) Practice personal hygienic protocol. Wash hands thoroughly before eating, drinking, smoking, handling tobacco products, applying cosmetics, or using toilet facilities. Dispose of contaminated clothing.
-) Seek competent medical assistance for any concerns or in the case of an exposure.