



Lamp Material Information Sheet

Material Safety Data Sheets (MSDS) Information and Applicability

The Material Safety Data Sheet (MSDS) requirements of the Occupational Safety and Health Administration (OSHA) for chemicals are not applicable to manufactured articles such as lamps. No material contained in a lamp is released during normal use and operation.

The following information is provided as a service to our customers. The following Lamp Material Information Sheet contains applicable Material Safety Data Sheet information.

I. Product Identification

GE Ecolux Lucalox Lamps

**GE Consumer & Industrial
Lighting**

1975 Noble Road
Nela Park
Cleveland, OH 44112
(216) 266-2222

II. Lamp Materials and Hazardous Ingredients

Lamp Content

These lamps consist of an inner, high purity alumina ceramic tube enclosed in an outer envelope of heat-resistant glass that contains 5-10% lead. The small amount of lead used in the glass does not affect the results of the TCLP test.

The ceramic tube contains a very small amount of sodium/mercury amalgam, containing less than 10 milligrams of mercury. The fill gas used in the ceramic tube is high purity xenon gas, considered to be inert. The electrodes in the arc tube are manufactured from tungsten and are coated with an emission mix of barium aluminate. Neither of these materials presents a significant exposure risk due to their physical form and insolubility. The support structure of the lamp uses nickel-plated iron or stainless steel wires.

III. Health Concerns

Exposure

The air concentration of mercury resulting from the breakage of one or a small number of tubes should result in no significant exposure to the individual. However, when breaking a large number of lamps for disposal, appropriate monitoring and controls should be implemented to control airborne levels or surface contamination. We recommend that such work be done in a well-ventilated area, and local exhaust ventilation or personal protective equipment may be needed.

Other than the normal concerns for electrical safety, there are no safety issues involved with Ecolux/NC lamps during normal use. As for disposal, no special precautions are necessary since unlike broken low pressure sodium lamps, it will not react violently with water.

Although the lamp does contain a small amount of mercury, present as an amalgam with the sodium, there is very little ultraviolet light emitted by the lamp as compared to the mercury or metal halide lamp types. UV is a concern with both the mercury and the metal halide lamps since they can produce considerable amounts of UV if the outer jacket of these lamps is broken and the lamp continues to operate. This is not the case with a Lucalox lamp.

IV. Disposal Concerns

TCLP

Disposal requirements for High Pressure Sodium lamps are determined by whether the lamp is characterized as hazardous waste. The Ecolux/NC lamp would not be classified as a hazardous waste, based on test data and statistical analysis developed according to the US EPA's Toxicity Characteristic Leaching Procedure (TCLP) for mercury¹.

The Ecolux/NC lamp passes the TCLP test because of a significant reduction in the amount of mercury used and in the elimination of lead solder. Ecolux/NC TCLP test performance information and the test protocol can be provided on request.

While the Ecolux/NC lamp will pass the federal EPA TCLP test, state or local regulations may still regulate disposal of mercury-containing products. If local disposal regulations exist, state and local agencies should be contacted for specific guidance.

¹ Method 1311 of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*. The TCLP characterization test is currently specified in the Code of Federal Regulations Title 40, Part 261 (40 CFR 261) as part of the Resource Conservation and Recovery Act of 1990.