



Product Safety Data Sheet

GE ECO High Pressure Sodium Lamps GE Ecolux® Lucalox® Lamps

Safety Data Sheet (SDS), or Material Safety Data Sheets (MSDS)

Information and Applicability

The Product Safety Data Sheet (SDS) requirements, formally known as the Material Safety Data Sheets (MSDS), 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 Product Safety Data Sheet contains applicable Safety Data Sheet information.

Section 1. Product Identification

GE ECO High Pressure Sodium Lamps GE Ecolux® Lucalox® Lamps

GE Lighting
1975 Noble Road
Nela Park
E. Cleveland, OH 44112
(216) 266-2222

Section 2. Hazard Identification

Other than the normal concerns for electrical safety, there are no safety issues involved with GE's ECO High Pressure Sodium lamps (marketed under the trade name Ecolux® Lucalox®) during normal use.

Although the lamp does contain a very small amount of mercury, as an amalgam with the sodium, there is very little ultraviolet light emitted by the lamp



Section 3 – Lamp Composition and Detailed Ingredient Information

General Lamp Composition

Ecolux Lucalox lamps consist of an inner, high purity alumina ceramic tube enclosed in an outer envelope of heat-resistant glass that contains 5-10% lead. Depending on the lamp type, the envelope is either clear or coated with a diffusing material. The material used as a diffuser on the coated lamps is a specially prepared aluminum oxide.

The ceramic tube contains a very small amount of sodium/mercury amalgam, containing less than 10 mg 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. The support structure of the lamp uses nickel-plated iron or stainless steel wires.

Section 4 – First Aid Measures

Not applicable to intact lamps during normal use and operation.

Section 5 – Fire-Fighting Measures

No special precautions necessary for fire fighters.

Section 6 - Accidental Release Measures

Less than 1% of the mercury in a Ecolux High-Pressure-Sodium lamp is in vapor form and will be released if the inner lamp arc-tube is accidentally broken. This extremely small exposure is less than 0.05 mg of mercury and is insignificant to an individual. Removing the broken lamp debris and ventilating the area for 15 minutes (if possible) is recommended. Do not vacuum lamp fragments. Clean-up all visible lamp pieces before vacuuming.



Section 7 – Handling and Storage

New lamps being held for use, or spent lamps being held for recycling, should remain in their original packaging, or other protective packaging, and should be placed in a dry storage area that minimizes any risk of accidental breakage.

Section 8 – Exposure Controls/Personal Protection

No unique requirements during normal use and operation. Very little ultraviolet energy is emitted from a Ecolux Lucalox lamp even if the outer jacket is broken and the lamp continues to operate.

Section 9 – Physical and Chemical Properties

Not applicable to intact lamps.

Section 10 – Stability and Reactivity

Not applicable to intact lamps.

Section 11 – Toxicological Information

Mercury

The air concentration of mercury resulting from the breakage of one or a small number of inner arc tubes should result in no significant exposure to the individual. This is due in part to the small amount of mercury amalgam present in the lamp, and to the use of an external amalgam reservoir. All sodium/mercury amalgam, except for the amount that is present as a vapor in the arc tube during operation, remains in the external reservoir. However, when breaking many lamps for disposal, appropriate monitoring and controls should be implemented to control airborne levels or surface contamination. It is recommended that such work be done in a well-ventilated area, and local exhaust ventilation or personal protective equipment may be needed.



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Electrodes

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.

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Section 13 – Disposal Considerations

TCLP

A Toxicity Characteristic Leaching Procedure¹ (TCLP) test conducted on an Ecolux Lucalox lamp WOULD NOT cause the lamp to be classified as a hazardous waste. Ecolux Lucalox lamps use lead-free solder on the base of the lamp and contain very little mercury in the arc-tube.

Some states require all mercury containing lamps, no matter how low the mercury content, to be recycled regardless of if they pass the TCLP test. You should review your waste handling practices to assure that you dispose of waste lamps properly. Contact your state environmental department for any regulations that may apply. To check state regulations or to locate a recycler, go to www.lamprecycle.org.

Universal Waste

Used lamps being stored for recycling must be managed as Universal Waste.

(1) Lamps being held for recycling should be held in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps and such containers should remain closed.

(2) Any lamp that is broken or shows evidence of damage should be placed in a container that is closed, structurally sound, and compatible with the contents of the broken lamps.

¹ Method 1311 of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846. The TCLP 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.



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(3) If storing lamps for recycling, each container in which such lamps are stored must be labeled or marked clearly with one of the following phrases: “Universal Waste--Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”

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Section 16 – Other Information

The Product Safety Data Sheet for GE Ecolux Lucalox High Pressure Sodium Lamps was prepared in 2017.