



Product Safety Data Sheet

GE LED (Light Emitting Diode) Lamps

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

Information and Applicability

Safety Data Sheet (SDS) requirements, formally known as 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. Therefore, lamps are exempt from the Safety Data Sheet (SDS) requirements in 29 CFR 1910.1200.

The following information is provided as a service to our customers. Note that no material contained in a lamp is released during normal use and operation. The following Product Safety Data Sheet contains applicable Safety Data Sheet information.

Section 1. Product Identification

GE LED (Light Emitting Diode) Lamps

GE Lighting

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

Section 2. Hazard Identification

There are no substances contained within an LED lamp that would cause the lamp to be classified as hazardous waste or universal waste.



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Section 3 – Lamp Composition and Detailed Ingredient Information

General Lamp Composition

Glass and Metal Materials

The glass globe used in some LED Lamps is manufactured from soda-lime glass and is essentially similar but not identical to that used throughout the glass industry for incandescent lamps, bottles and other common consumer items. Some of the glass globes may contain a thin coating of clay and silica inside the surface of the glass. The lamp bases are generally nickel-plated brass. Many LED lamps also contains aluminum, in the housing material, and steel. None of these materials would present a hazard in the event of breakage of the lamp, aside from the obvious hazard due to broken glass.

Plastic

The plastic covering used in some LED lamps is manufactured from polycarbonate, the base housing contains PBT (polybutylene-terephthalate) and is essentially like that used throughout the plastics industry for other common consumer products and common construction materials.

Light Emitting Diode Packages

The composition of the LED Package that produces white light consists of metals, phosphor, plastics and InGaN (Indium Gallium Nitride) semiconductor chip(s). Due to their insolubility and inertness, these materials do not present a hazard.

Electronic Driver

The electronic driver is built into the lamp housing. The driver consists of parts that are essentially similar, but not identical, to those used throughout the electronics industry for other common consumer electronic equipment. LED drivers do not contain Lead solder and are compliant with the European RoHS directive.



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

No special precautions necessary upon accidental breakage other than the obvious precautions for cleaning up broken glass. Protective gloves should be worn when cleaning up broken glass.

Section 7 – Handling and Storage

New lamps being held for use 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

While much cooler than incandescent lamps, lamp bases can be warm or even hot to the touch when operating. Lamps should be allowed to cool before handling or changing. Protective gloves are recommended to change lamps while still hot.

Section 9 – Physical and Chemical Properties

Not applicable to intact lamps.



Section 10 – Stability and Reactivity

Not applicable to intact lamps.

Section 11 – Toxicological and Health Information

There are no known toxicological health hazards from exposure to lamps that are intact. If the lamp is broken and bare LEDs are exposed and still operating, do not look directly into a bare LED for any extended period-of-time or extreme eye discomfort can temporarily occur due to very high chip brightness.

Ultraviolet (UV) Energy

In general, there is very little UV energy emitted by LED lamps. The Ultraviolet energy emitted by LED lamps complies with IEC standard, 62471, *The Photobiological Safety of Lamps*.

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Section 13 – Disposal Considerations

TCLP

A Toxicity Characteristic Leaching Procedure Test (TCLP) test conducted on LED (Light Emitting Diode) lamps would not cause the lamps to be classified as hazardous waste for disposal. There are no special disposal requirements for LED lamps.

Recycling

GE recommends that users recycle LED lamps at the end of their life, especially if being disposed in significant quantities. Most traditional lamp recyclers will recycle LED lamps. For a list of recyclers, go to www.lamprecycle.org.

You should review your waste handling practices to assure that you dispose of waste lamps properly and contact your state environmental department if there are any questions about state regulations that may apply.



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ROHS and Reach (Europe)

All lamps sold meet the European Commission directive 2011/65/EU for RoHS 2 (Restriction of Hazardous Substances) and European Commission directive 2006/1907/EC REACH (Registration, Evaluation, Authorization and Restriction of Chemicals).

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Section 16 – Other Information

The Product Safety Data Sheet for GE LED (Light Emitting Diode) Lamps was prepared in 2017.