



## Lamp Material Information Sheet

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### 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.

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### I. Product Identification

#### GE Incandescent Lamps

#### GE Consumer & Industrial Lighting

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

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### II. Lamp Materials and Hazardous Ingredients

#### Glass & Metal

These lamps are composed of a standard lime glass envelope or a heat-resistant glass envelope surrounding a tungsten wire filament. Certain automotive lamps have an amber glass envelope for use on automobiles where required by the Department of Transportation. Depending on the lamp type, the envelope is either clear or coated with a diffusing material.

#### Diffusing Material

If the coating is on the interior of the lamp, it is either specially prepared Kaolin clay (Frosted, Standard or Soft-White lamps) or a mixture of Kaolin clay and a pigment (Dawn Pink and Bug Yellow). If the coating is on the exterior of the lamp, it consists of a fired glass material containing a suitable pigment.

#### Metals

In addition to the tungsten lamp filament, other wires made from molybdenum, copper, iron, and/or nickel are used as support wires or for electrical connections. Lamp bases may be either brass or aluminum and contain a lead solder. Some lamp types are manufactured without bases.

### III. Health Concerns

Tungsten, molybdenum, copper, iron, nickel, and clay are all considered hazardous chemicals, but because of their form or relatively low toxicity, do not present a hazard. Neither do the pigments used in the exterior coatings, due to the insolubility of the glass coating.

In Dawn Pink and Bug Yellow bulbs, cadmium sulfide and selenide were previously used ingredients in the interior coating. Although the evidence is limited and conflicting, cadmium and certain cadmium compounds have been listed by the International Agency for Research and Cancer (IARC) and by the National Toxicology Program (NTP) as possible human carcinogens. The risk from exposure to the coating in a single lamp, if broken, is negligible. During the 1980s, a non-cadmium pigment replaced the cadmium pigment in both of these products. Since that time, cadmium pigments have not been used in any incandescent products.

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### IV. Disposal Concerns

#### TCLP

A Toxicity Characteristic Leaching Procedure (TCLP) test conducted on lead-solder based-lamps, could cause the lamps to be classified as hazardous waste for lead. The lead used in the solder poses little risk of exposure under normal use and handling. While small numbers of these lamps placed in ordinary trash may not appreciably affect the nature or method of disposal of the trash, under some circumstances disposal of large quantities may be regulated. You should review your waste handling practices to assure that you dispose of waste lamps properly and contact your state environmental department for any regulations that may apply.