### **Incandescent and Halogen Lamps**

### **Current Lighting Solutions, LLC**

25825 Science Park STE 400 Beachwood, OH 44122-7392

## Safety Data Sheet (SDS), 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

Current Incandescent and Halogen Lamps

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#### Section 2. Hazardous Identification

Although most incandescent lamps no longer contain lead solder, a few lamp types designed for high temperature operation still contain a small amount of lead solder in the lamp base. Disposal of these few remaining lead-solder based incandescent lamp types may require some commercially regulated users to dispose of these products as hazardous or universal waste.



## Section 3. Lamp Composition and Detailed Ingredient Information

#### **General Lamp Composition**

#### **Glass and other Common Materials**

Incandescent and Halogen 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. Lamps may be manufactured with or without bases.

### **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.

## 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

Due to high temperature during operation, lamps should be allowed to cool before handling or changing. Protective gloves would be required 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 Information

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 the 1970's and earlier, cadmium sulfide and selenide were used as ingredients in the interior coating of Dawn Pink and Bug Yellow bulbs. 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 products. Since that time, cadmium pigments have not been used in any incandescent products.

	Section 12. Ecological Information	
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## **Section 13. Disposal Considerations**

#### **TCLP**

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

A Toxicity Characteristic Leaching Procedure (TCLP) test conducted on high temperature lead-solder based-lamps, such as oven lamps or very high wattage 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.

Section 14. Transport Information	
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	Section 15. Regulatory Information
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## **Section 16. Other Information**

The Product Safety Data Sheet for Incandescent and Halogen Lamps was prepared in 2022.