

Lamp Material Data Sheet (LMDS)

Product: Philips Metal Halide Lamps

MH, MHT, MP, MS Types - All wattages

LMDS #: MH-12000

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Section 1. Manufacturer and Contact Information

Philips Lighting Company

A Division of Philips Electronics North America Corporation
200 Franklin Square Drive
Somerset, NJ 08873-4186

24 HR Emergency Phone Number: (800) 424-9300 CHEMTREC

Other Information Calls: (800) 555-0050 Philips Lighting Technical Information

Section 2. Hazardous Ingredients/Identity Information

These lamps contain the following materials:

| Material | (CAS #) | Exposure Limits | | PERCENTAGE (by weight) |
|--------------------------------|-------------|----------------------------------|-----------------------------------|---------------------------|
| | | OSHA PEL (mg/m ³) | ACGIH TLV (mg/m ³) | |
| Inert Materials (glass, metal) | | | | ~98% |
| Mercury | (7439-97-6) | 0.1 | 0.025 | <0.03% |
| Sodium Iodide | (7681-82-5) | | | <0.02% |
| Yttrium Vanadate* | (7440-65-5) | 1.0 | 2.0 | ~0.5% |

* Coated outer bulbs only.

Possible exposure to non-inert materials will only result if both the outer bulb and the inner arc tube are broken.

Section 3. Physical Properties

Not applicable to an intact lamp. The outer bulb is borosilicate glass, the base is brass or nickel-plated brass, and the inner envelope (arc tube) is ceramic. Other chemical or physical characteristics are not applicable.

Section 4. Fire and Explosion Hazards

The outer glass bulb encloses an inner ceramic arc tube. There is a vacuum or low pressure fill within the outer bulb. If the lamp is dropped or struck, a possible implosion could result which might cause flying glass particles.

WARNING: The arc tubes of metal halide lamps are designed to operate at high pressures and temperatures (up to 1200°C). If the arc tube ruptures for any reason, the outer bulb may break and shards of extremely hot glass may be discharged into the surrounding environment, with the associated risk of property damage or personal injury.

Section 5. Reactivity

Incompatibility: If using a lamp support, ensure it is electrically isolated to avoid possible decomposition of the bulb glass.

Section 6. Health Hazards

Other than exposure to high operating temperatures, there are no health hazards associated with an intact lamp.

WARNING: These lamps can cause serious skin burns and eye inflammation from short wave ultraviolet radiation if the outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes when the envelope is broken unless adequate shielding or other safety precautions are used. Certain lamps that will automatically extinguish when the outer envelope is broken are available commercially.

The inner envelope is composed of a quartz material containing elemental mercury and small amounts of sodium and other iodides. In the event the inner envelope is broken, avoid inhalation of any vapors or skin contact with any of the fragments or contents.

Section 7. Lamp Disposal Procedures

Normal precautions should be taken for the collection of glass particles in the event a lamp is broken.

Waste Disposal Method: These lamps contain some amount of mercury. When a lamp is to be disposed, it is subject to the current EPA Toxicity Characteristic Leaching Procedure (TCLP) disposal criteria. This test is used to determine if an item can be managed as hazardous or non-hazardous waste. These lamps are not TCLP compliant and should be managed as a hazardous waste under the EPA Universal Waste Rules.

All disposal options should be evaluated with respect to federal, state, and local requirements. Before disposing of waste lamps, check with federal, state, and/or local officials for current guidelines and regulations. Philips encourages recycling of its products through qualified recycling facilities.

Section 8. Control Measures

Respiratory Protection: None while operating. NIOSH-approved respirator should be used if large quantities of lamps are being broken for disposal.

Ventilation: Avoid inhalation of any airborne dust. Provide local exhaust when disposing of large quantities of lamps.

Hand and Eye Protection: Appropriate hand and eye protection should be worn when disposing of lamps and/or handling broken glass.

Section 9. Regulatory Information

As an article, these mercury-containing lamps, when shipped in the manufacturer's original packaging, may be regulated for air, truck, or ocean shipment. As a waste, these lamps may be regulated in various states and local communities.

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