

### Lamp Material Data Sheet (LMDS)

LMDS #: MHC-08100E

### Product: Philips Medium Wattage Metal Halide ELITE Lamps

Date: 12/19/2012

CDM-T Type Lamps – All wattages – Protected and Unprotected

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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 <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )	
Inert Materials (glass, metal)				~99.5%
Mercury	(7439-97-6)	0.1	0.025	<0.03%
Thallium Iodide	(7790-30-9)	0.1	0.1	<0.02%
Calcium Iodide	(10102-68-8)		5.0	<0.25%
Sodium Iodide	(7681-82-5)			<0.06%
Cerium Iodide	(7790-87-6)			<0.01%
Krypton (Kr <sup>85</sup> )*	(13983-27-2)			<25ηCi

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

\* Unprotected versions

#### Section 3. Physical Properties

Not applicable to an intact lamp. The outer bulb is UV-block quartz glass, the base is ceramic with stainless steel pins, 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 a ceramic arc tube which is refractory. There is a vacuum within the outer envelope. If the lamp is dropped or struck, a possible implosion could result which would cause flying glass.

**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 ceramic material containing elemental mercury and small amounts of thallium 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.

Thallium is a cumulative poison. It, or its salts, can be absorbed through the skin. If they are ingested, they can be absorbed by the gastrointestinal tract. Seek competent medical help for all exposures. Although the amount of thallium in the inner envelope is small, avoid breaking the lamps. If lamps are broken, use adequate personal protection and ventilation.

## 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 a product, these mercury-containing lamps, when shipped in the manufacturer's original packaging, are not regulated by air, truck, or ocean shipment. As a waste, these lamps may be regulated in various states and local communities. This safety data sheet does not constitute "knowledge of the waste" in certain jurisdictions.

This document supercedes previous document: MHC-08100D dated 05/02/2011