

### Lamp Material Data Sheet (LMDS)

LMDS #: HPS – 09100

**Product: Philips High Pressure Sodium Lamps** (Ceramalux, SON, SDW)  
ALTO and non-ALTO – All Wattages

Date: 12/19/2012

Page 1 of 2

#### 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 in Air		PERCENTAGE by weight
		OSHA PEL mg/m <sup>3</sup>	ACGIH TLV mg/m <sup>3</sup>	
Inert Materials (metals, glass, ceramics)				>98%
Barium	(7440-39-3)	0.5	0.5	<0.04%
Sodium	(7440-23-5)	2.0	2.0	<0.01%
Mercury	(7439-97-6)	0.1	0.025	<0.03%

The Phosphor Powder materials are ceramic phosphors. The ceramics are Barium Aluminate and Yttrium Oxide. The PEL and TLV are given where available for the base materials. There is no data for the ceramics as mixtures.

#### Section 3. Physical Properties

Not applicable to an intact lamp. These items are light bulbs in various shapes, configurations, and designs. All contain a light emitting discharge tube (composed of polycrystalline alumina – a high temperature refractory material), a glass envelop (bulb) to house the discharge tube, and a threaded base for use in lamp sockets.

#### Section 4. Fire and Explosion Hazards

Not applicable to an intact lamp. Under extreme heat the outer glass envelope may melt or crack.

## Section 5. Reactivity

Not applicable to an intact lamp.

## Section 6. Health Hazards

Not applicable to an intact lamp. Breakage of the lamp may result in some exposure to the phosphor powder and to elemental mercury. No adverse effects are expected from occasional exposure to broken lamps, but as a matter of good practice, prolonged exposure should be avoided through the use of adequate ventilation during the disposal of large quantities of lamps.

Emergency and First Aid Procedures: Apply normal first aid for glass cuts if such should occur through lamp breakage.

## 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: All high pressure sodium lamps contain some amount of mercury. When a high pressure sodium 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.

Philips low-mercury ALTO high pressure sodium lamps are identifiable by their characteristic green logo or green dimple in the outer bulb. Philips ALTO lamps are TCLP compliant and can be managed as non-hazardous waste. Philips will provide TCLP test data upon request for its ALTO products.

Philips non-ALTO lamps (with black logo) are not TCLP compliant and should be managed as a hazardous waste under the EPA Universal Waste Rules for lamps.

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 lamp recycling facilities.

## Section 8. Control Measures

Respiratory Protection: None. 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, may be subject to domestic and international transportation regulations when shipped by air. 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 documents: S19-93001 dated 08/2002  
S19-97001 dated 08/2002  
S19-98001 dated 11/2006  
S19-99001 dated 11/2006

Occupational Health and Safety Administration (OSHA) Material Safety Data Sheet (MSDS) requirements for materials are not applicable to manufactured articles in which individuals would not be subjected to materials contained in the article during its normally intended use. The information in this document is provided as a courtesy and is intended to provide relevant information in the event the articles it covers are encountered during unintended, or abnormal, circumstances.