PHILIPS

Philips Lighting Company

MATERIAL SAFETY DATA SHEET **Revised 11/06**

PRODUCT: CERAMALUX™ with ALTO™ LAMP TECHNOLOGY
Including Non-Cycling lamp types
50W, 70W, 100W, 150W, 200 W, 250W and 400W

SECTION 1: MANUFACTUERER

Manufacturer's Name and Address: Philips Lighting Company
A Division of Philips Electronics
North America Corporation
200 Franklin Square Drive
P.O. Box 6800
Somerset, NJ 08875

Emergency Telephone Number: (800) 424-9300 CHEMTREC
(732) 563-3197 Safety and Compliance
Other Information Calls: (607) 776-3311 Ext. 300

SECTION 2: HAZARDOUS INGREDIENTS

	OSHA PEL	ACGIH	PERCENTAGE
Barium (7440-39-3)	8-hr TWA 0.5 mg/m^3	.5 mg/m^3	<400 ppm
Sodium (7440-23-5)	8-hr TWA 2.0 mg/m^3	ceiling 2 mg/m^3	<30 ppm
Silver (7440-22-4)	8-hr TWA .01 mg/m^3	TWA 0.1 mg/m^3	< 20 ppm
Mercury (7439-97-6)	.1 mg/m^3	.025 mg/m^3	.02%
Inert ingredient (Glass, Quartz, Brass)			> 99%

SECTION 3: PHYSICAL CHEMICAL CHARACTERISTICS

This item is a glass bulb with a brass base and a refractory alumina inner arc tube. Chemical / physical data as in a standard MSDS are not applicable.

SECTION 4: FIRE AND EXPLOSION DATA

Fire and explosion data not applicable to the intact lamp. There is so little sodium in this lamp that exposing the broken inner arc tube to water will not produce fire. Under extreme heat outer glass envelope might melt or crack. The inner arc tube is composed of polycrystalline alumina and is refractory material.

SECTION 5: REACTVITY DATA

Stability: The lamp is stable
Incompatibility: Glass envelope will react with hydrofluoric acid, sodium reacts with water but in this case the amount of sodium is extremely small and reaction will not be vigorous.

SECTION 6: HEALTH EFFECTS

Not applicable in the intact lamp. The inner envelope is composed of polycrystalline alumina. Breakage of this envelope may result in some exposure to elemental sodium and mercury. No adverse effects are expected from occasional exposure to broken lamps. As a matter of good practice, breakage should be avoided. Prolonged or frequent exposure to broken envelopes should be avoided through use of adequate ventilation during disposal of large quantities of lamps.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

Normal precautions should be taken for the collection of broken glass.

Waste Disposal Method: At the end of rated life, when this lamp is removed from service, it will be subjected to the current Toxic Characteristic Leaching Procedure (TCLP) prescribed by the Environmental Protection Agency. This test is used to determining whether an item is a hazardous waste or a non-hazardous waste under current E. P. A. definition. Philips Lighting will provide the test protocol on request. This result will allow the end user to evaluate all of the disposal options, which may be available in the particular state in which the generator facility is located. Disposal of this lamp is currently regulated in California, Minnesota, Vermont, Connecticut, Maine (mid 2002), and the incinerator counties of Florida. The generator should check with local and state officials for their guidance. In most states ALTO lamps are considered non-hazardous subtitle D waste. Philips encourages recycling of its products by qualified recyclers.

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SECTION 8: CONTROL MEASURES

Respiratory Protection: Appropriate dust mask 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 large quantities of lamps or broken lamps.

SECTION 9: REGULATORY INFORMATION

As a product these mercury containing lamps being shipped in the manufacturers original packaging are not regulated by air, truck or ocean shipment. As a waste, this spent ALTO lamp would be regulated in California, Minnesota, Connecticut, Vermont, Maine (will regulate disposal as of Mid 2002), and certain communities of Florida. Disposal of ALTO lamps as non-hazardous in Tennessee requires a permit. Households are exempt in most States except Minnesota and Vermont. This material safety data sheet does not constitute "knowledge of the waste", in certain jurisdictions. TCLP data will be furnished upon request.

PHILIPS

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MATERIAL SAFETY DATA SHEET

PRODUCT: HIGH PRESSURE SODIUM LAMPS **Revised 8/02**

SECTION 1: MANUFACTURER

Manufacturer's Name and Address: Philips Lighting Company
A Division of Philips Electronics
North America Corporation
200 Franklin Square Drive
Somerset, NJ 08875

Emergency Telephone No.: (800) 424-9300 CHEMTREC
(732) 563-3197
Other Information Calls: (607) 776-3311 Ext. 300

SECTION 2: HAZARDOUS INGREDIENTS

	OSHA (PEL) mg/m^3	ACGIH (TLV) mg/m^3	% by Wt.
Sodium (7440-23-5)	2.0 8-TWA	Ceiling	less than .01
Mercury (743-97-6)	.1 Ceiling	.025 8 hr. TWA	Less than .02
Lead (7439-92-1)	.05		

SECTION 3: PHYSICAL DATA

This item is a glass light bulb; chemical characteristics are not applicable.

SECTION 4: FIRE AND EXPLOSION DATA

Fire and explosion data not applicable. Under extreme heat outer glass envelope might melt or crack. Inner arc tube is composed of polycrystalline alumina and is refractory material.

SECTION 5: REACTIVITY DATA

Stability: Lamp is stable.
Incompatibility: Glass envelope will react with hydrofluoric acid.
Polymerization: Not applicable

SECTION 6: HEALTH HAZARD DATA

Not applicable to intact lamp. The inner envelope is composed of polycrystaline alumina. Breakage of this envelope may result in some exposure to elemental sodium and mercury. No adverse effects are expected from occasional exposure to broken lamps. As a matter of good practice, breakage should be avoided. Prolonged or frequent exposure to broken envelopes should be avoided through use of adequate ventilation during disposal of large quantities of lamps.

EMERGENCY AND FIRST AID PROCEDURE: Normal first aid procedure for glass cuts if such occur through lamp breakage.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

Normal precautions should be taken for collection of broken glass.

Waste Disposal Method: At the end of rated life, when this lamp is removed from service, it will be subjected to the current Toxic Characteristic Leaching Procedure (TCLP) prescribed by the Environmental Protection Agency. This test is used to determining whether an item is a hazardous waste or a non-hazardous waste under current E. P. A. definition. These lamps would fail the TCLP test and would be considered hazardous under the Universal Waste Rules. Generators should evaluate all of the disposal options, which may be available in the particular state in which the generator's facility is located. The generator should check with federal, state and local officials for their guidance. Philips encourages recycling of its products by qualified recyclers

SECTION 8: CONTROL MEASURES

Respiratory Protection: None. NIOSH-approved respirator might be used if large volumes of lamps are being broken for disposal.
Ventilation: Avoid inhalation of any airborne dust.
Hand and Eye Protection should be worn when handling broken glass.

SECTION 9: REGULATORY INFORMATION

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