Material Safety Data Sheet

To Whom It May Concern,

The Larson Electronics LLC LEDBLT industrial line of LED light fixtures are considered "ARTICLES" under 29 CFR 1910-1200, the OSHA Hazard Communication Standard, and do not require a Material Safety Data Sheet (MSDS). This document does not expire.

Articles are specifically exempt from the regulations of this standard. OSHA defines an article as follows:

1910-1200(c) – Article means a manufactured item other than a fluid or particle:

i. Which is formed to a specific shape or design during manufacture;
ii. Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
iii. Which under normal conditions does not release more than very small quantities.

Regards,

Ray Smith
Larson Electronics, LLC.

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PHILIPS

Philips Lighting Company

MATERIAL SAFETY DATA SHEET

PRODUCT: INCANDESCENT LAMPS **Revised: 6/01**

SECTION 1: MANUFACTURER

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

Emergency Telephone No.: (800) 424-9300 CHEMTREC
(732) 563-3197 Safety and Compliance
Other Information Calls: (800)-PLC BULB

SECTION 2: HAZARDOUS INGREDIENTS

	OSHA PEL	ACGIH TLV	PERCENTAGE
Lead + (7439-92-1)	.05mg/m^3	less than .1mg/m^3	approx. .025

+ Lead is found within the glass tubing inside the lamp and inside the solder.

SECTION 3: PHYSICAL/CHEMICAL DATA

This item is a glass light bulb. The base is generally aluminum, some applications use brass bases. Chemical characteristics not applicable.

SECTION 4: FIRE AND EXPLOSION DATA

This item is a light bulb. It has no fire data. Under extreme heat, bulb might crack or melt.

SECTION 5: REACTIVITY DATA

Stability: Lamp is stable
Incompatibility: Glass will react with Hydrofluoric Acid.
Base will react with acids.
Polymerization: Will not occur.

SECTION 6: HEALTH HAZARD DATA

Not applicable for the intact lamp, when power is off. When lamp is on, bulb gets hot to the touch.

EMERGENCY AND FIRST AID PROCEDURE: If glass cuts occur due to breakage of lamp, use normal first aid procedure.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

When replacing a lamp, be sure the power to the socket is turned off before removing old lamp.

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

WASTE DISPOSAL METHOD: Under the Toxicology Characteristic Leachate Procedure (TCLP) promulgated by the U.S. Environmental Protection Agency (EPA), tests of used or spent incandescent lamps will fail the TCLP for lead if they contain lead solder. Under the Universal Waste Rule, lamps which fail the TCLP can treated as a Universal Waste and sent for recycling rather than hazardous waste disposal. If treated under the UWR rules are much simpler and easier from a compliance standpoint. Check with your local and State Authorities for guidance.

Small numbers of these lamps may be covered under the Conditionally exempt small generator classification. Not all States accept this exemption, especially in the East. To determine your status check with your local or State authorities. Households are exempt from Federal hazardous waste jurisdiction, but individual states may vary. Customers should review their waste handling practices to assure that they are properly disposing of waste lamps.

A division of
Philips Electronics North America Corporation

200 Franklin Square Drive
P.O. Box 6800
Somerset, NJ 08875-6800
Tel: 732.563.3000

SECTION 8: CONTROL MEASURES

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



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200 Franklin Square Drive
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Prepared: 7/98

S01-93002

PHILIPS

Philips Lighting Company

MATERIAL SAFETY DATA SHEET

PRODUCT: Compact Fluorescent Lamps

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
Other Information Calls: (732) 563-3197 Safety and Compliance

SECTION 2: HAZARDOUS INGREDIENTS

	OSHA (PEL) mg/m^3	ACGIH (TLV) mg/m^3	% by Wt.
Phosphor Powder			
Nuisance Dust	15	10	Approx. 2.5
Cerium Terbium Magnesium Aluminate*	N/A	10	Approx. .25
Barium Magnesium Aluminate*	N/A	1.0	Approx. .5
Yttrium Oxide (1314-36-9)	1.0	1.0	Approx. .5
Antimony*(7440-36-0)	.5	.5	Approx .01%
Manganese*(7439-96-5)	.5	.2	Approx .02%
Mercury (7439-97-6)	.1	.025	< than 20 ppm

*PEL and TLV are given for magnesium, aluminum oxide, yttrium, antimony, and mangenese. Barium aluminate is not a soluble compound. Antimony and Manganese are tightly bound within the crystal matrix of the phosphor (Calcium Phosphate).

SECTION 3: CHEMICAL/PHYSICAL DATA

Not applicable. This item is a light bulb. The bulb is glass, the base is a coated aluminum. The coating is inert.

SECTION 4: FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION DATA NOT APPLICABLE -- under extreme heat, glass envelope might melt or crack.

SECTION 5: REACTIVITY DATA

Stability: Lamp is stable.
Polymerization: Not applicable.
Incompatibility: Glass will react with Hydrofluoric Acid.

SECTION 6: HEALTH HAZARD DATA

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

EMERGENCY FIRST AID: 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 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 data on request. This result will allow the generator to 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. In most states ALTO lamps are considered non-hazardous subtitle D waste. Philips encourages recycling of its products by qualified recyclers.

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 handling broken lamps.

SECTION 9: REGULATORY ISSUES

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, spent ALTO fluorescent lamps maybe regulated in various states and local communities. This material safety data sheet does not constitute "knowledge of the waste", in certain jurisdictions. TCLP data will be furnished upon request.