SAFETY DATA SHEET
Compact Fluorescent Pin-Based Lamps

SYLVANIA brand Compact Fluorescent Pin-based Lamps, manufactured by LEDVANCE, LLC, are exempted from the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) because they are "articles." The following information is provided by LEDVANCE, LLC as a courtesy to its customers.

I. IDENTIFICATION

Trade Name (as labeled): **SYLVANIA Compact Fluorescent Lamps (for general lighting applications)**

This data sheet covers the following general lighting compact fluorescent lamp types: SYLVANIA DULUX®

Manufacturer:
LEDVANCE, LLC
200 Ballardvale Street
Wilmington, MA 01887
978-570-3000

Emergency Contact: EH&S Specialist 978-570-3000

II. HAZARD IDENTIFCATION

Warning!

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LAMPS THAT ARE INTACT.

Warning! If lamp is broken, mercury may be harmful if inhaled and may cause irritation of the eyes and respiratory tract.

If discomfort, irritation or symptoms of pulmonary involvement develop, seek medical attention as needed.

Storage: Store in well-ventilated place.

Consult the SYLVANIA product catalog or relevant technical data sheets for complete warnings, operating and installation guides for specific lamp types.

III. COMPOSITION – INFORMATION ON INGREDIENTS

There are no known health hazards from exposure to lamps that are intact.

Materials listed on this data sheet are contained in varying percentages in this product. Exact percentages are proprietary and will not be disclosed other than as required in accordance with the regulations. The following materials, unless specified otherwise, are part of the glass bulb portion of the DULUX unit. The % weight, unless specified otherwise, is relative to the glass bulb portion of the DULUX lamp. If the glass bulb is broken, the following materials may be released:

Chemical Name	CAS Number	% by wt.
Glass (Soda-Lime)	---	75-90
(1, 4) Mercury	7439-97-6	<0.02
Aluminum Oxide	001-344-281	0-2.0
Fluorescent Phosphor may contain:	---	0.5-3.0
(3) Barium Compounds (as Ba dust)	7440-39-3	0-0.1
(3) Manganese (as dust)	7439-96-5	0-0.1
(3) Yttrium Oxide (as Y dust)	7440-65-5	0-0.5

(1) These chemicals are subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

(2) Limits as nuisance particulate.

(3) These elements are contained in the material as part of its chemical structure; the material is not a mixture.

(4) The mercury and lead in this product are substances known to the state of California to cause reproductive toxicity if ingested. [California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).]

***NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards* and/or *NIOSH Pocket Guide to Chemical Hazards* lists the following effects of overexposure to the chemicals/materials tabulated below when they are inhaled, ingested, or contacted with skin or eye:**

Mercury - Exposure to high concentrations of vapors for brief periods can cause acute symptoms such as pneumonitis, chest pains, shortness of breath, coughing, gingivitis, salivation and possibly stomatitis. May cause redness and irritation as a result of contact with skin and/or eyes.

Phosphor - Phosphor dust is considered to be physiologically inert and as such, has an OSHA exposure limit of 15 mg/cubic meter for total dust and 5 mg/cubic meter for respirable dust.

Barium Compounds - Alkaline barium compounds, such as the hydroxide and carbonate, may cause local irritation to the eyes, nose, throat, and skin.

Glass - Glass dust is considered to be physiologically inert and as such, has an OSHA exposure limit of 15 mg/cubic meter for total dust and 5 mg/cubic meter for respirable dust. The ACGIH TLVs for particulates not otherwise classified are 10 mg/cubic meter for total dust and 3 mg/cubic meter for respirable dust.

Manganese - Inhalation of manganese dust may cause local irritation to the eyes, nose, and throat.

Yttrium - Studies of workers exposed to this material showed no evidence of chronic or systemic effects.

Aluminum Oxide (Alumina) - Alumina is a non-toxic material which is very low in free silica content. Sharpedged particles can irritate the eyes, perhaps the skin, and definitely the mucous membranes of the respiratory tract.

All other components of this product do not pose a significant risk of respiratory and/or physical effects.

IV. EMERGENCY AND FIRST AID PROCEDURES:

Glass Cuts: Perform normal first aid procedures. Seek medical attention as required.
Inhalation: If discomfort or irritation to the nose and throat develop, remove from exposure and seek medical attention as needed. If breathing has stopped, perform artificial respiration; keep affected person warm and at rest; get medical attention as soon as possible.
Ingestion: In the unlikely event of ingesting a large quantity of material, seek medical attention immediately.
Contact, Skin: Thoroughly wash affected area with mild soap or detergent and water and prevent further contact. Seek medical attention as needed.
Contact, Eye: Wash eyes, including under eyelids, immediately with copious amounts of water for 15 minutes. Seek medical attention.

V. FIRE-FIGHTING MEASURES:

Flammability: Non-combustible
Fire Extinguishing Materials: Use extinguishing agents suitable for surrounding fire.
Special Firefighting Procedure: Use a self-contained breathing apparatus to prevent inhalation of dust and/or fumes that may be generated from broken lamps during firefighting activities.
Unusual Fire and Explosion Hazards: When exposed to high temperature, toxic fumes may be released from broken lamps.

VI. ACCIDENTAL RELEASE MEASURES:

ONLY APPLICABLE FOR BROKEN LAMPS

Ventilation: Use adequate general and local exhaust ventilation to maintain exposure levels below the PEL or TLV limits. If such ventilation is unavailable, use respirators as specified below.
Respiratory protection: Use appropriate NIOSH approved respirator if airborne dust concentrations exceed the pertinent PEL or TLV limits. All appropriate requirements set forth in 29 CFR 1910.134 should be met.
Eye protection: OSHA specified safety glasses, goggles or face shield are recommended if lamps are being broken.
Protective clothing: OSHA specified cut and puncture-resistant gloves are recommended for dealing with broken lamps.
Hygienic practices: After handling broken lamps, wash hands and face thoroughly before eating, drinking, smoking or handling tobacco products, applying cosmetics, or using toilet facilities.

According to the US Environmental Protection Agency's CFL cleanup guidelines at www.epa.gov/cfl:

Before Cleanup
•Have people and pets leave the room.
•Air out the room for 5-10 minutes by opening a window or door to the outdoor environment.
•Shut off the central forced air heating/air-conditioning system, if you have one.
•Collect materials needed to clean up broken bulb: stiff paper or cardboard; sticky tape; damp paper towels or disposable wet wipes (for hard surfaces); and a glass jar with a metal lid or a sealable plastic bag.

During Cleanup
•DO NOT VACUUM. Vacuuming is not recommended unless broken glass remains after all other cleanup steps have been taken. Vacuuming could spread mercury-containing powder or mercury vapor.
•Be thorough in collecting broken glass and visible powder. Scoop up glass fragments and powder using stiff paper or cardboard. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the glass jar or plastic bag. See the detailed cleanup instructions for more information, and for differences in cleaning up hard surfaces versus carpeting or rugs.

•Place cleanup materials in a sealable container.

After Cleanup
•Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a trash container or protected area until materials can be disposed of. Avoid leaving any bulb fragments or cleanup materials indoors.
•Next, check with your local government about disposal requirements in your area, because some localities require fluorescent bulbs (broken or unbroken) be taken to a local recycling center. If there is no such requirement in your area, you can dispose of the materials with your household trash.
•If practical, continue to air out the room where the bulb was broken and leave the heating/air conditioning system shut off for several hours.

However, if you are concerned about your health after cleaning up a broken CFL, consult your local poison control center by calling 1-800-222-1222. You can call your center any time you have questions or in an emergency. You can also consult your physician about potential health effects from mercury exposures.

VII. SPECIAL HANDLING INFORMATION - FOR BROKEN LAMPS

ONLY APPLICABLE FOR BROKEN LAMPS

Ventilation: Use adequate general and local exhaust ventilation to maintain exposure levels below the PEL or TLV limits. If such ventilation is unavailable, use respirators as specified below.
Respiratory Protection: Use appropriate NIOSH approved respirator if airborne dust concentrations exceed the pertinent PEL or TLV limits. All appropriate requirements set forth in 29 CFR 1910.134 should be met.
Eye Protection: OSHA specified safety glasses, goggles or face shield are recommended if lamps are being broken. To avoid exposure to ultraviolet radiation, use only in enclosed equipment designed for this lamp type.
Protective Clothing: OSHA specified cut and puncture-resistant gloves are recommended for dealing with broken lamps.
Hygienic Practices: After handling broken lamps, wash thoroughly before eating, smoking or handling tobacco products, applying cosmetics, or using toilet facilities.
Storage Instructions: Store in well-ventilated place.

According to the US Environmental Protection Agency's CFL cleanup guidelines at www.epa.gov/cfl:

Before Cleanup
•Have people and pets leave the room.
•Air out the room for 5-10 minutes by opening a window or door to the outdoor environment.
•Shut off the central forced air heating/air-conditioning system, if you have one.
•Collect materials needed to clean up broken bulb: stiff paper or cardboard; sticky tape; damp paper towels or disposable wet wipes (for hard surfaces); and a glass jar with a metal lid or a sealable plastic bag.

During Cleanup
•DO NOT VACUUM. Vacuuming is not recommended unless broken glass remains after all other cleanup steps have been taken. Vacuuming could spread mercury-containing powder or mercury vapor.
•Be thorough in collecting broken glass and visible powder. Scoop up glass fragments and powder using stiff paper or cardboard. Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the glass jar or plastic bag. See the detailed cleanup instructions for more information, and for differences in cleaning up hard surfaces versus carpeting or rugs.
•Place cleanup materials in a sealable container.

After Cleanup
•Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a trash container or protected area until materials can be disposed of. Avoid leaving any bulb fragments or cleanup materials indoors.

•Next, check with your local government about disposal requirements in your area, because some localities require fluorescent bulbs (broken or unbroken) be taken to a local recycling center. If there is no such requirement in your area, you can dispose of the materials with your household trash.
•If practical, continue to air out the room where the bulb was broken and leave the heating/air conditioning system shut off for several hours.

However, if you are concerned about your health after cleaning up a broken CFL, consult your local poison control center by calling 1-800-222-1222. You can call your center any time you have questions or in an emergency. You can also consult your physician about potential health effects from mercury exposures.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold Value Limits (TLV):

Chemical Name	Exposure Limits in Air (mg/cubic m) ACGIH (TLV)	OSHA (PEL)
Glass (Soda-Lime)	10.0 (2)	15.0 (2)
(1, 4) Mercury	0.025	0.1 Ceiling
Aluminum Oxide	10.0 (2)	15.0 (2)
Fluorescent Phosphor may contain:		
(3) Barium Compounds (as Ba dust)	0.5	0.5
(3) Manganese (as dust)	0.2	5.0 Ceiling
(3) Yttrium Oxide (as Y dust)	1.0	1.0

(1) These chemicals are subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

(2) Limits as nuisance particulate.

(3) These elements are contained in the material as part of its chemical structure; the material is not a mixture.

(4) The mercury and lead in this product are substances known to the state of California to cause reproductive toxicity if ingested. [California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).]

Personal Protective Equiment: OSHA specified cut and puncture-resistant gloves are recommended for dealing with broken lamps.
Eye Protection: OSHA specified safety glasses, goggles or face shield are recommended if lamps are being broken.
Skin Protection: After handling broken lamps, wash hands and face thoroughly before eating, drinking, smoking or handling tobacco products, applying cosmetics, or using toilet facilities.
Respitory Protection: Use appropriate NIOSH approved respirator if airborne dust concentrations exceed the pertinent PEL or TLV limits. All appropriate requirements set forth in 29 CFR 1910.134 should be met.

VIV. PHYSICAL AND CHEMICAL PROPERTIES

NOT APPLICABLE FOR LAMPS

X. STABILITY AND REACTIVITY

NOT APPLICABLE FOR LAMPS

XI. TOXICOLOGICAL INFORMATION

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LAMPS THAT ARE INTACT. No adverse effects are expected from occasional exposure to broken lamps. As a matter of good practice, avoid prolonged or frequent exposure to broken lamps unless there is adequate ventilation. The major hazard from broken lamps is the possibility of sustaining glass cuts.

XII. ECOLOGICAL INFORMATION

XIII. DISPOSAL CONSIDERATIONS

LEDVANCE LLC recommends that all mercury-containing lamps be recycled. For a list of lamp recyclers and to obtain state regulatory disposal information, log onto www.lamprecycle.org.

It is the responsibility of the waste generator to ensure proper classification and disposal of waste products. To that end, TCLP tests should be conducted on all waste products, including this one, to determine the ultimate disposition in accordance with applicable federal, state and local regulations.

Lamps that pass the EPA's TCLP test are considered non-hazardous waste in most states. Always review your local and state regulations which can vary. Based upon the NEMA* Standard LL 2 (Procedures for Bi-Pin Compact Fluorescent Lamp Sample Preparation and the TCLP) testing protocol, these lamps pass the TCLP test.

*NEMA (National Electrical Manufacturers Association) standard may be obtained from NEMA, 1300 North 17th Street, Suite 900, Arlington, VA 22209.

XVI. TRANSPORTATION INFORMATION

XVII. REGULATORY INFORMATION

RoHS:
All SYLVANIA and OSRAM lamps listed above meet the EC directive Restriction of Hazardous Substances (RoHS II) Directive 2011/65/EU for mercury and lead.

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Although LEDVANCE, LLC attempts to provide current and accurate information herein, it makes no representations regarding the accuracy or completeness of the information and assumes no liability for any loss, damage or injury of any kind which may result from, or arise out of, the use of/or reliance on the information by any person.

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In case of questions please call: EH&S Specialist 978-570-3000
