SAFETY DATA SHEET
LED Lamps & Replacements

SYLVANIA brand LED 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 LED**

This data sheet covers all LED lamp types, base types and wattages.

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! Risk of exposure to electric shock hazard if lamp is broken while still installed in a powered light fixture. Inner light components may continue to operate with a broken outside bulb. Disconnect light fixture from power before attempting to remove lamp from fixture.

Normal precautions should be taken when handling any broken lamp components. Avoid contact with skin and use gloves to handle broken glass or metal components. Apply normal first aid if lacerations occur when handling of broken lamps.

No adverse health effects are expected from occasional exposure to broken lamps, however, prolonged exposure should be avoided through the use of adequate ventilation during the cleanup and disposal of large quantities of lamps

These lamps do not contain hazardous substances. Please check with appropriate contacts in your federal, state, or local governments for any guidelines and regulations related to disposal. Or for additional information, consult with you LEDVANCE contact.

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

Storage: N/A

III. COMPOSITION – INFORMATION ON INGREDIENTS

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

LEDVANCE LED lamps are lighting equipment with standardised sockets and bases so that they can replace less efficient lamps without changing the fixture ("retrofit"). These lamps are available in many different designs such as reflector, classic, pin-based or tubular shaped lamps.

Composition:

Glass/Plastic/Metal Enclosure:
LED lamps are available in various bulb types and shapes that may be constructed of glass, plastic or aluminum or a combination of these materials. The glass enclosure used in some of the LED lamps is manufactured from soda-lime glass and is essentially similar but not identical to that used throughout the glass industry for incandescent lamps, bottles and other common consumer items. Some of the glass enclosures may contain a thin coating of clay and silca inside the surface of the glass.

Base:
All lamps are fitted with a metal base or pins for installation in appropriate lighting fixtures. Bases are generally constructed with aluminum, nickel-plated tin, nickel-plated brass, plastic or a combination of these. None of these materials would present a hazard in the event of breakage of the lamp, aside from the obvious ones due to broken glass.

Light Emitting Diode Package:
LED lamps contain solid-state light emitting diodes (LEDs) as the light-generating source. The LED's composition consists of metals, phosphor, plastics and InGaN (Indium Gallium Nitride) semiconductor chip. Due to their insolubility and inertness, these materials do not present a significant hazard.

Electronic Driver:
LED lamps also contain circuitry to energize the LEDs. The electronic LED driver is built into the lamp housing. The driver consists of parts that are essentially similar, but not identical, to those used throughout the electronics industry for other common consumer electronic equipment. The plastic housing is typically made of PBT (Polybutylene-terephthalate) and is not considered hazardous.

IV. EMERGENCY AND FIRST AID PROCEDURES:

Glass Cuts: Perform normal first aid procedures. Seek medical attention as required.
Inhalation: If discomfort, irritation or symptoms of pulmonary involvement develop, remove from exposure and seek medical attention as needed.
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: These lamps are non-flammable. Under extreme heat the outer glass or plastic bulb may melt or crack.

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

Handle broken lamp components carefully avoiding sharp edges. Sweep up broken material and fine particulate while wearing gloves and other protective equipment as needed. Label and dispose of material in appropriate container.

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: N/A for intact lamps

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)
Solder (Sb/Sn)		
Antimony (Sb)	0.5	0.5
Tin (Sn)	2.0	2.0
Aluminum (as dust)	10.0	10.0
Copper (as dust)	1.0	1.0

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.

IX. 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

NOT APPLICABLE FOR LAMPS

XIII. DISPOSAL CONSIDERATIONS

Clean-up by vacuuming or other method that avoids dust generation. Ventilate area if excessive dust is generated from broken lamp. Take usual precautions for collection of broken glass. Place materials in closed containers.

For disposal of these lamps in EU-states, apply European Directive 2002/96/EC “WEEE” (Waste, Electrical and Electronic Equipment). For disposal in non-EU-states, national legislation must be applied. For more information ask your LEDVANCE contact directly.

XVI. TRANSPORTATION INFORMATION

These lamps are not subject to dangerous goods regulation.

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.

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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
