SAFETY DATA SHEET LED Luminaires



SYLVANIA brand LED Luminaires, 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.

Trade Name (as labeled):	SYLVANIA LED		
	This data sheet covers all LED luminaire types of various wattages; t include commercial indoor and outdoor luminaires, and residential luminaires. This data sheet does not cover luminaires with emergency battery backup units.		
Manufacturer:	LEDVANCE, LLC 200 Ballardvale Street Wilmington, MA 01887 978-570-3000		
Emergency Contact:	EH&S Specialist 978-570-3000		
AZARD IDENTIFCATION			



Warning!

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LUMINAIRES THAT ARE INTACT AND ARE USED AS INTENDED.

Warning! Risk of exposure to electric shock hazard if luminaire is broken while connected to power. Inner light components may continue to operate with a broken outside optic. Disconnect luminaire from power before attempting to replace.

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

Avoid prolonged eye exposure to direct light from LEDs, especially for fixtures with high light output. Injury may occur if product is changed or damaged resulting in lengthy direct exposure to the eyes of unfiltered light from LEDs.

These light fixtures 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 your 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 - I	INFORMATION ON I	NGREDIENTS	

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LUMINAIRES THAT ARE INTACT AND ARE USED AS INTENDED.

SYLVANIA brand LED luminaires are lighting equipment which consists of a LED light source, and electrical, mechanical and optical components. Some examples of SYLVANIA LED Luminaires are edge lit panels, troffers, high bays, surface mount lights, canopy and garage fixtures, vapor tight linear luminaires, area lights and wall packs.

Composition:

Electical Components:

LED Luminaires include several electrical/electronic components such as LED drivers/power supplies and transformers, wires and sockets. They may also include light or motion detectors. These parts are essentially similar, but not identical, to those used throughout the electronics industry for other common consumer electronic equipment, and they are not considered hazardous.

Light Source:

LED Luminaires contain an array of solid-state light emitting diodes (LEDs) mounted on a metal or plastic printed wiring board, which functions 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.

Mechanical Components:

LED Luminaires usually include metal or plastic housing, and other structures that support other components in the fixture.

Optical Components:

LED luminaires also contain optical components such reflectors, refractors (diffusers/lenses), shields and baffles. Materials used are aluminum, plastic and glass and are not considered hazardous.

IV. EMERGENCY AND FIRST AID PROCEDURES:

<u>Skin</u>: Wash with soap and water. Treat lacerations using standard first aid procedures. Seek medical attention as needed.
<u>Inhalation</u>: Not applicable.
<u>Eyes</u>: Not applicable.

V. FIRE-FIGHTING MEASURES:

<u>Flammability</u>: These fixtures are non-flammable. Under extreme heat some material such as plastic or glass lenses or diffusers may melt or crack.

Fire Extinguishing Materials: Use extinguishing agents suitable for surrounding fire.

<u>Unusual Fire and Explosion Hazards</u>: Materials may be electrically conductive. When exposed to high temperature, toxic fumes may be released from broken fuxtures.

VI. ACCIDENTAL RELEASE MEASURES:

ONLY APPLICABLE FOR BROKEN LUMINAIRES

Pieces of broken fixture components may form sharp edges and fine particulate matter can be created. Sweep up loose material while wearing eye protection, respiratory protection, and gloves as needed to prevent irritation and/or lacerations. Place gathered material in an impermeable container and label appropriately.

VII. SPECIAL HANDLING INFORMATION

Use common sense and good handling practices to avoid fixture breakage.

ONLY APPLICABLE FOR BROKEN LUMINAIRES

Electric Shock Hazard: Ensure broken luminaire is disconnected from power prior to handling.

<u>Ventilation</u>: 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.

<u>Respiratory Protection</u>: 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 fixtures are being broken.

<u>Protective Clothing</u>: OSHA specified cut and puncture-resistant gloves are recommended for dealing with broken luminaires.

<u>Hygienic Practices</u>: After handling broken fixtures, wash thoroughly before eating, smoking or handling tobacco products, applying cosmetics, or using toilet facilities.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold Value Limits (TLV):

Chemical Name	Exposure Limits in ACGIH (TLV)	Air (mg/cubic m) OSHA (PEL)
Glass (Soda Lime) Solder (Sb/Sn)	10.0 (2)	15.0 (2)
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

Eye Protection:

If a fixture is damaged in a manner where direct exposure to the LED light emissions is possible and can cause uncomfortable lighting levels, remove power from the fixture, and repair or replace the damaged portion before returning it to service.

If service personnel need to work with powered fixture without light diffusers and filters installed, appropriate light filtering eye wear should be used.

OSHA specified safety glasses, goggles or face shield are recommended if fixtures are being broken.

<u>Personal Protective Equiment:</u> OSHA specified cut and puncture-resistant gloves are recommended for dealing with broken luminaires.

<u>Skin Protection</u>: After handling broken luminaires, wash hands and face thoroughly before eating, drinking, smoking or handling tobacco products, applying cosmetics, or using toilet facilities.

<u>Respiratory Protection</u>: 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

Physical Form: Solid Odor: None Boiling Point: None Volatile by Weight: <0.01% Sublimes at: Not applicable/determined Evaporation Rate: 0 Vapor Pressure: Negligible at room temp. Vapor Density: Negligible at room temp. Solubility in Water: Insoluble. Density: Not applicable

X. STABILITY AND REACTIVITY

Reactivity: Chemical Stability:

None known. Stable

XI. TOXICOLOGICAL INFORMATION

Carcinogenicity: Some components within the LED Driver of the Luminaire may contain carcinogens listed by IARC, but these quantities typically are well below 0.1% of the total product weight.

XII. ECOLOGICAL INFORMATION

NOT APPLICABLE FOR LUMINAIRES

XIII. DISPOSAL CONSIDERATIONS

For disposal of these luminaires in EU-states, apply European Directive 2002/96/EC "WEEE" (Waste, Electrical and Electronic Equipment). In non-EU-states, disposal must be in compliance with national, state and local laws and regulations. For more information ask your LEDVANCE contact directly.

XVI. TRANSPORTATION INFORMATION

Luminaires with no emergency battery backup units are not subject to dangerous goods regulation.

XVII. REGULATORY INFORMATION

RoHS:

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

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

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