



LINEAR FLUORESCENT

T5 / T8 / T10 / T12 / U-BEND / CIRCLINE
MATERIAL SAFETY DATA SHEET



INFORMATION AND APPLICABILITY

The Material Safety Data Sheet (MSDS) requirements of the Occupational Safety and Health Administration (OSHA) for chemicals are not applicable to manufactured articles such as lamps. No material contained in a lamp is released during normal use and operation.

The information in this document is provided as a courtesy and is intended to provide relevant information in the event the articles it covers are encountered during unintended, or abnormal, circumstances.

SECTION 1: PRODUCT IDENTIFICATION

TRADE NAME(S): SUPERIOR LIFE® / SKY-BRITE® / SKY-BRITE PLUS® / VITA-BRITE™

This data sheet is inclusive of all "White" linear (Warm White, Cool White, Daylight, 700, 800 etc.), T5, T8, T10 and T12, U-Bend, and Circline lamps for general lighting applications.

MANUFACTURER: P.Q.L., INC.
2285 Ward Avenue
Simi Valley, CA 93065
Ph: 800.323.8107

SECTION 2: LAMP MATERIALS AND INFORMATION ON INGREDIENTS

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

LAMP ASSEMBLY:

Glass and Metal - The glass is made from soda lime similar to that used throughout the glass industry for other common consumer items. The metals for end caps and filaments are generally made from various amounts of aluminum, tin, lead, copper, zinc, and nickel. None of these materials would present a potential hazard in the event of breakage of the lamp, aside from the hazard due to broken glass.

Mercury - Small quantities of mercury is used in all fluorescent lamps. The amount of mercury present in any given lamp will vary depending on both the size of the lamp and designed life of the lamp.

Phosphor - (nuisance dust) phosphate mix using manganese, rare earth elements such as lanthanum, and yttrium as either an oxide or as a phosphate, along with a barium/aluminum oxide all are tightly bound in the phosphor matrix. These phosphors produce better lamp efficiency and color rendition. The phosphor components may vary slightly depending on the color of the lamp. Some lamps may contain a thin coating of tin oxide inside the glass.

SECTION 3: PHYSICAL/CHEMICAL PROPERTIES

Not applicable to intact lamp. These lamps come in various shapes, lengths and diameters. All contain a fluorescent tube and a pin base for use in standard fluorescent sockets.

SECTION 4: FIRE AND EXPLOSION HAZARDS

Not applicable to an intact lamp. If subjected to extreme heat, the glass, and plastic (if present), components of the lamp may crack or melt and may release toxic fumes.

SECTION 5: REACTIVITY DATA

Not applicable to an intact lamp.

continued



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SECTION 6: HEALTH HAZARDS

Not applicable to an intact lamp. Breakage of the lamp may result in some exposure to the phosphor powder and to elemental mercury. No adverse effects are expected from occasional exposure to broken lamps, but prolonged exposure should be avoided through the use of adequate ventilation during the disposal of large quantities of lamps.

Glass - Take normal care with broken glass. Apply normal first aid for glass cuts if such should occur through lamp breakage. Guidance on cleaning up a broken lamp can be obtained from: www.epa.gov/cfl

Mercury - The mercury in the air as a result of breaking one or a small number of fluorescent lamps should not result in significant exposures to an individual. If large numbers of lamps are broken, clean-up personnel should use appropriate industrial hygiene monitoring and controls to minimize airborne or surface contamination levels. We recommend a well-ventilated area, and local exhaust ventilation or personal protective equipment.

Phosphor - There have been no significant adverse effects on humans by ingestion, inhalation, skin contact, or eye contact. As with most inorganic compounds, antimony, manganese, yttrium, and tin are characterized by OSHA as hazardous chemicals. However, due to their insolubility, relatively low toxicity and small amount present in the phosphor and lamp, these materials do not present a significant hazard in the event of breakage of the lamp.

Inhalation - If discomfort, irritation or symptoms of pulmonary involvement should develop, seek medical attention.

Ingestion - In the unlikely event of ingestion of a large quantity of material, seek medical attention.

Contact Eye/Skin - Wash eyes/skin, including under eyelids, immediately with large amounts of water and seek medical attention.

SECTION 7: LAMP DISPOSAL PROCEDURES

Take usual precautions for broken glass. Place materials in closed containers to avoid generating dust. A Toxicity Characteristic Leaching Procedure (TCLP) was conducted on these products showing a result of mercury content that is not considered hazardous waste. For field disposal the lead in the soldering is considered hazardous waste and must be disposed of by applicable federal, state and local regulations.

See: www.lamprecycle.org

SECTION 8: CONTROL MEASURES

Respiratory Protection - None. NIOSH-approved respirator 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 lamps and/or handling broken glass.

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