

LAMP MATERIAL INFORMATION SHEET SELF BALLASTED COMPACT FLUORESCENT LAMPS

MATERIAL SAFETY DATA SHEET (MSDS) 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 following information is provided as a service to our customers. This Lamp Material Information Sheet contains the Material Safety Data Sheet information that is applicable.

SECTION 1: PRODUCT IDENTIFICATION

Trade Name: SATCO

- This data sheet is inclusive of all "White" CFL (Warm White, Cool White, Daylight) lamps for general lighting applications
- This data sheet is not intended to cover compact fluorescent for special application including blacklight, germicidal, or colored lamps.

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SECTION 2: LAMP MATERIALS AND HAZARDOUS INGREDIENTS

Glass & Metal

The glass tube used in a self-ballasted compact fluorescent lamp is Lead Free Glass. The coils in the lamps (called filaments or cathodes) are made of tungsten. An emitter material covers the tungsten coil. This emitter material consists of triple oxide (BaO, CaO, SrO) + ZrO₂ in a quantity of 2-25 mg/lamp depending on type. Other than the usual concerns of broken glass, these materials do not pose a hazard in the event that the lamp breaks.

Phosphor

The phosphor system uses a mixture of rare earth elements such as lanthanum and yttrium as either an oxide or as a phosphate, along with a barium/aluminum oxide. These phosphors produce better lamp efficiency and color rendition. The phosphor components may vary slightly depending on the color of the lamp (cool white, warm white, etc.). Total phosphor weight will vary by lamp size and type.

Mercury

Small quantities of mercury are present in any compact fluorescent lamp. The amount of mercury used currently in any particular lamp will fluctuate depending on both the dimensions of the lamp and the designed life of the lamp. Smaller, shorter life lamps generally have lower mercury content.

Plastic Material

The plastic housing is typically made of PBT (Polybutylene-terephthalate) fire retarded plastic. This product consists primarily of high molecular weight polymers that are not hazardous.

SECTION 3: PHYSICAL/CHEMICAL PROPERTIES

Not Applicable to Intact lamp.

SECTION 4: FIRE AND EXPLOSION HAZARDS

Not applicable. Under extreme high temperatures, the glass might crack

SECTION 5: REACTIVITY DATA

Stability: Stable

Incompatibility: None for intact lamp

Hazardous Polymerization: Not applicable

SECTION 6: HEALTH HAZARDS

EXPOSURE TO INTACT LAMPS DOES NOT POSE ANY KNOWN HEALTH HAZARDS

Glass

Take normal care with broken glass.

Phosphor

As with most inorganic compounds, antimony, manganese, yttrium, and tin are characterized by OSHA as hazardous chemicals. However, they have low toxicity, are insoluble, and are present in very small amounts in the lamp; therefore these compounds are not a significant hazard in the event that the lamp breaks.

Mercury

Neither the mercury nor the phosphor concentration in air produced as a result of breaking one or a small number of compact fluorescent lamps should result in significant exposures to the 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. Personal protective equipment may be needed. Lamp recycling when large quantity lamp disposal is required. See: www.lamprecycle.org for a list of lamp recyclers.

SECTION 7: DISPOSAL CONCERNS

Take normal precautions for broken glass. Avoid generating dust; personal protective equipment may be needed. Avoid generating dust; personal protective equipment may be needed. Contains mercury. Manage in accord with disposal laws. See: www.lamprecycle.org