

Compact Fluorescent Safety Data Sheet (SDS)

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TECHNICAL CONSUMER PRODUCTS believes that under the Occupational Safety and Health Administration (OSHA) Hazards Communications Standard (29 CFR 1910.1200), a lamp (light bulb) is exempt as an "article", and that as such, does not require an MSDS. The original OSHA Standard defined an article as something that: 1) is formed to a specific shape and design, 2) has end use functions dependent upon its shape and design, and 3) does not release or otherwise result in an exposure to a hazardous chemical under normal conditions of use.

In February 1994, OSHA amended the Hazard Communication Standard and modified part 3 of the above to read: 3) does not release more than very small quantities of a hazardous chemical under normal conditions of use. State and local regulations also contain similar exemptions for such articles. Materials contained in the lamp are not released during normal use and operation. The following information is provided as a courtesy to our customers.

Section 1. MANUFACTURER AND CONTACT INFORMATION

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Section 2. HAZARDOUS 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 amounts of mercury is used in all fluorescent lamps. Generally around 0.025% by weight. The amount of mercury present in any given lamp will vary depending on both the size of the lamp and on the equipment that was used in its manufacture. TCP continues to reduce the amounts of mercury used in fluorescent products.

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 are all 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. COMPOSITION / INFORMATION ON INGREDIENTS

NOT APPLICABLE TO AN INTACT LAMP.

Section 4. FIRST-AID MEASURES

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, apply normal first-aid.

Section 5. FIRE AND EXPLOSION HAZARDS

NOT APPLICABLE TO AN INTACT LAMP.

Flammability: Non-combustible

Fire Extinguishing: Use extinguishing agents suitable for surrounding fire. If exposed to extreme heat the plastic and glass components may crack or melt and may release toxic fumes.

Section 6. HEALTH HAZARDS

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

Breakage of lamp may result in some exposure to phosphor powder and elemental mercury. No adverse effects are expected from occasional exposure to broken lamps. As a matter of good practice avoid prolonged exposure through the use of adequate ventilation during clean up or disposal.

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. However, when breaking a large number of lamps for disposal, appropriate industrial hygiene monitoring and controls should be implemented to minimize airborne levels or surface contamination. 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. Antimony, manganese, yttrium and tin compounds 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.

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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. Perform normal first aid procedures. Seek medical attention as required.

Inhalation: If discomfort, irritation of symptoms of pulmonary involvement should develop, remove from exposure and seek medical attention.

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

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

Section 7. LAMP DISPOSAL

Take usual precautions for collection of broken glass. Place materials in closed containers to avoid generating dust.

All compact fluorescent lamps contain some amount of mercury. The EPA recommends that if a CFL breaks carefully sweep up all the fragments—wipe the area with a wet towel and dispose of all fragments, including the used towel, in a sealed plastic bag. Follow all disposal instructions. If possible open windows to allow the room to ventilate. Do NOT use a vacuum. Place all fragments in a sealed plastic bag and follow disposal instructions.

All disposal options should be evaluated with respect to federal, state, and local laws and requirements. Before disposing check with officials for current CFL disposal regulations.

Section 8. SPECIAL HANDLING

Ventilation: Avoid prolonged exposure through the use of adequate ventilation during clean up or disposal.

Respiratory: Use NIOSH approved respirator if large quantities of lamps are being broken for disposal

Hand and Eye Protection: OSHA specified safety glasses, goggles, or face shield and puncture resistant gloves are recommended if lamps are being broken.

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