COMPACT FLUORESCENT LAMP MATERIAL INFORMATION SHEET

MATERIAL DATA 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.

Ⅰ. PRODUCT IDENTIFICATION

Trade names: F2C55xx

Ⅱ. LAMP MATERIALS AND HAZARDOUS INGREDIENTS

Chemical Name	CAS Number	% by wt.
Glass (lead-free)	9067-32-7	80-90
Mercury	7439-97-6	<0.02
Lead Oxide	1317-36-8	0.2-1.0
Aluminum Oxide	001-344-281	0-1.0
Phosphor	12004374	4-5

Glass & Metal

The glass tube used is soda-lead glass. The metals used are usually made from nickel, copper, and lead. The filaments, also called cathodes, are tungsten. Other than the usual concerns of broken glass, these materials do not pose a hazard in the event that the lamp breaks.

Phosphor

This is a phosphate mixture using manganese and fluoride along with rare earth elements such as lanthanum, yttrium as either an oxide or phosphate, and barium/aluminum oxide. The phosphor components may vary slightly depending on the color of the lamp (cool white, warm white, etc.).

Mercury

Small quantities of mercury are present in any fluorescent lamp. The amount of mercury used currently in F2C55W Circle fluorescent lamps is less than 5 milligrams.

Ⅲ. PHYSICAL PROPERTIES

Not applicable to intact lamp.

Ⅳ. FIRE & EXPLOSION HAZARD

Flammability: Non-combustible
Fire-extinguishing Materials: Use extinguishing agents suitable for surrounding fire.
Special fire-fighting 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.

Ⅴ. HEALTH CONCERNS

EXPOSURE TO INTACT LAMPS DOES NOT POSE ANY KNOWN HEALTH HAZARD

Phosphor

As with most inorganic compounds, antimony, manganese, yttrium, fluoride 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

If a small number of lamps are broken, the mercury and/or phosphor concentration in the air should not cause significant exposure to people nearby. 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.

Lead

Ingestion and inhalation of lead dust or fume must be avoided. Irritation of the eyes and respiratory tract may occur. Excessive lead absorption is toxic and may include symptoms such as anemia, weakness, abdominal pain, and kidney disease.

Glass

Take normal care with broken glass.

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.

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

Contact Skin: Thoroughly wash affected area with mild soap or detergent and water and prevent further contact. Seek medical attention if irritation occurs.

Contact Eye: Wash eyes, including under eyelids, immediately with copious amounts of water for 15 minutes. Seek medical attention.

Ⅵ. REACHTIVITY DATA

Stability: Stable

Conditions to avoid: None for intact lamps.

Incompatibility (materials to avoid): None for intact lamps.

Hazardous Decomposition Products (including combustion products): None for intact lamps.

Hazardous Polymerization Products: Will not occur.

Ⅶ. DISPOSAL CONCERNS

Take normal precautions for broken glass.

Avoid generating dust; personal protective equipment may be needed.

Contains mercury. A Toxicity Characteristic Leaching Procedure (TCLP) test was done on these lamps, and they passed the test, being below the limit of 0.200 milligrams of mercury per liter of leachate. Contains lead in the solder. Manage in accord with disposal laws. See: www.lamprecycle.org

Ⅷ. SPECIAL HANDLING INFORMATION – FOR BROKEN LAMPS

Ventilation: Use adequate general and local exhaust ventilation to maintain exposure levels below the PEL or TLV limit. 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.

Protective Clothing: OSHA specified cut and puncture-resistance 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.