Material Safety Data Sheet
T8, T12 Fluorescent Blacklight Lamps

Gilbert® brand Fluorescent Lamps, are exempt from the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) because they are "articles". The following information is provided as a courtesy to our customers.

MATERIAL SAFETY DATA SHEET MSDS FL BL350
BL368

Revision history Issued September, 2016

1. Product Identification:

Trade Name (as labelled): Gilbert® “BL350”and “BL368” Blacklight Fluorescent Lamps

Manufacturer: Gilbert Industries, Inc.
5611 Krueger Drive
Jonesboro, AR
72401

2. HAZARDOUS INGREDIENTS

There are no known health hazards from exposure to intact lamps.

Unless specified otherwise, the following materials are from the glass bulb part of the complete lamp.

Unless specified otherwise the percentage weight is referred to the complete lamp.

If the glass bulb is broken then the following materials may be released,

			Exposure Limits in Air (mg/cubic m)	
Chemical Name	**CAS Number**	**% by wt.**	**ACGIH (TLV)**	**OSHA (PEL)**
Glass (soda lime)	-----	75 - 95	*10.0* [2)]	*15.0* [2)]
Mercury [1, 4)]	7439-97-6	< 0.01 - < 0.05	*0.025*	*0.1 Ceiling*
Lead Oxide [1, 3, 4)]	1317-36-8	0.2 – 2.0	*0.05*	*0.05*
Aluminum Oxide	001-344-281	0 – 2.0	*10.0* [2)]	*15.0* [2)]
Fluorescent Phosphor and cathodes may contain:	-----	0.5 – 3.0	*10.0* [2)]	*15.0* [2)]
Calcium [3)] (as dust)	-----	0 – 0.1	*10.0* [2)]	*15.0* [2)]
			Exposure Limits in Air (mg/cubic m)	
Chemical Name	**CAS Number**	**% by wt.**	**ACGIH (TLV)**	**OSHA (PEL)**
Yttrium [3)] (as dust)	7440-65-5	0 – 0.5	*1.0*	*1.0*
Barium [3)] (as dust)	7440-39-3	< 0.1	*0.5*	*0.5*
Tungsten [3)] (as dust)	7440-33-7	< 0.1	*1.0*	*15.0* [2)]
Strontium [3)] (as dust)	7440-24-6	0 – 0.1	*10.0* [2)]	*15.0* [2)]
Zirconium [3)] (as dust)	7440-67-7	0 – 0.1	*5.0* [2)]	*5.0* [2)]
Cerium [3)] (as dust)	7440-45-1	0 – 0.1	*10.0* [2)]	*15.0* [2)]

1) *These chemicals are subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.*
2) *Limits as nuisance particulate.*
3) *These elements are contained in the material as part of its chemical structure; the material is not a mixture.*
4) *The mercury and lead in this product are substances known to the state of California to cause reproductive toxicity if ingested. [California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).]*

3. PHYSICAL AND CHEMICAL PROPERTIES

Not applicable to intact lamp.

4. FIRE AND EXPLOSION DATA

Flammability	The lamp is 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 come from lamps broken by the heat or fire-fighting activities.
Unusual fire or explosion hazards	When exposed to high temperatures, toxic fumes may be released from broken

5. HEALTH HAZARDS

A. OPERATING LAMPS

Consult Gilbert® Industries, Inc. website for relevant technical data sheets: gilbertinc.com

WARNING:

This lamp emits ultraviolet (UV) power during operation. See lamp data sheets for UV output information. Certain medications and chemicals can increase an individual's sensiivity to UV. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long-term exposure in close proximity to the lamps.BL350 and BL368 lamps are RG-2 per ANSI/IESNA RP-27.3-96.

B. LAMP MATERIALS

THERE ARE NO KNOWN HEALTH HAZARDS FORM 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.

***NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards and/or NIOSH Pocket Guide to Chemical Hazards* lists the following effects of overexposure to the chemicals/materials tabulated below when they are inhaled, ingested or contacted with skin or eye:**

Mercury – contact, inhalation or ingestion may cause one or more of the following symptoms:
eye irritation, skin irritation, cough, chest pain, dyspnea, bronchitis, pneumonitis, tremor, insomnia, irritability, indecision, headache, fatigue, weakness, stomatitis, salivation, GI tract disturbance, anorexia, weight loss and proteinuria.

Lead – contact, ingestion or inhalation may cause one or more of the following symptoms:
weakness, lassitude, insomnia, facial palor, pal eye, anorexia, weight loss, malnutrition, constipation, abdominal pain, colic, anemia, gingival lead line, tremor, wrist paralysis, ankles paralysis, encephalopathy, kidney disease, eye irritation and hypotension.

Glass – Glass dust is considered to physiologically inert and as such has an OSHA exposure limit of 15 mg/m^3 for total dust and 5 mg/m^3 for respirable dust. The ACGIH TLVs for particulates not otherwise classified are 10 mg/m^3 for total dust and 3 mg/m^3 for respirable dust.

Tin – contact, ingestion or inhalation may cause one or more of the following symptoms:
eye irritation, skin irritation and respiratory system irritation.

Manganese – contact, ingestion or inhalation may cause one or more of the following symptoms:
Parkinson's, asthenia, insomnia, mental confusion, metal fume fever, dry throat, cough, chest tightness, dyspnea, rales, flu-like fever, low-back pain, vomiting, malaise, fatigue and kidney damage.

Fluoride – Fluoride-containing dust may cause *irritation of the eyes and respiratory tract.* Swallowing fluoride may cause *a salty or soapy taste, vomiting, abdominal pain, diarrhea, shortness of breath, difficulty in speaking, thirst, weakness of the pulse, disturbed color vision, muscular weakness, convulsions, loss of consciousness and death. Kidney injury and bleeding frorm the stomach* may occur. Repeated exposure to fluoride may cause *excessive calcification of the bone and calcification of ligaments of the ribs, pelvis and spinal column. Stiffness and limitation of motion* may result. Repeated or prolonged exposure of the skin to fluoride containing dust *may cause a skin rash.*

Aluminum Oxide (Alumina) – Alumina is a non-toxic material. Sharp-edged particles can *irritate the eyes, skin and respiratory system.*

Phosphor – Phosphor dust is considered to physiologically inert and as such has an OSHA exposure limit of 15 mg/m^3 for total dust and 5 mg/m^3 for respirable dust.

Yttrium – contact, ingestion or inhalation may cause one or more of the following symptoms: *eye irritation, pulmonary irritation and possible liver damage*.

Barium (soluble compounds) – Contact ingestion or inhalation may cause one or more of the following symptoms: *eye irritation, skin irritation, upper respiratory system irritation, skin burns, gastroenteritis, muscle spasm, slow pulse, extrasystole and hypokalemia.*

Tungsten – contact, ingestion or inhalation may cause one or more of the following symptoms: *eye irritation, respiratory system irritation, diffuse pulmonary fibrosis, loss of appetite, nausea, cough and blood changes.*

Antimony – contact, ingestion or inhalation may cause one or more of the following symptoms: *eye irritation, skin irritation, nose irritation, throat irritation, mouth irritation, cough, dizziness, headache, nausea, vomiting, diarrhea, stomach cramps, insomnia, anorexia and unable to smell properly.*

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.

CARCINOGENIC ASSESSMENT (NTP ANNUAL REPORT, IARC MONOGRAPHS, OTHER): NONE

6. REACTIVITY DATA

Stability:	Stable
Conditions to avoid	None, for intact lamps
Incompatibility (Materials to avoid)	None, for intact lamps
Hazardous decomposition products	None, for intact lamps
Hazardous polymerisation	Will not occur

7. PROCEDURES FOR DISPOSAL OF BROKEN LAMPS

Gilbert® encourages the recycling of its products by qualified recyclers. Further information can be obtained from www.nema.org/lamprecycle.

If lamps are broken, ventilate area where breakage occurred. Clean-up with mercury vacuum cleaner or other suitable means that avoids dust and mercury vapor generation. Take usual precautions for collection of broken glass. Clean-up requires special care due to mercury droplet proliferation. Place materials in closed containers to avoid generating dust.

It is the responsibility of the waste generator to ensure proper classification of waste products. To that end, TCLP tests should be conducted on all waste products, including this one, to determine the ultimate disposition in accordance with applicable federal, state and local regulations. Some states have specific disposal requirements for lamps containing mercury.

Lamps which pass the EPA's TCLP test are considered non-hazardous waste in most states. Always review your local and state regulations which can vary.

8. SPECIAL HANDLING INFORMATION – FOR BROKEN LAMPS.

These instructions only apply to broken lamps.

Ventilation:
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.

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 resistant gloves are recommended for dealing with broken lamps.

Hygienic Practices: After handling broken lamps, wash hands and face thoroughly before eating, smoking or handling tobacco products, applying cosmetics or using toilet facilities.

Issue Date: September, 2016