Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364

## EPL-24-2L-INTL-20WT8

# 40W Explosion Proof Fluorescent Light Fixture - Paint Booth Rated - 3118 Lumens - 2 Lamp - 2 foot

**Product ID: 151176**



**Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.**

**EPL-24-2L-INTL-20WT8 Explosion Proof**
**Wiring Hub: 1/2 inch threaded**
**Dimensions: W-11.25" L-27.5" H-8.5 "**
**Weight: 55 Lbs**
**Total Watts: 40 watts**
**Voltage: Multi- 120V-60hz 220V-50hz 240V-60hz 277V-60hz**

**Total Lumens: 3118**

**Mounting: Bracket Standard - Pendant Optional**
**Lamp Life Expectancy: 24,000 Hours**
**Efficiency: 78 Lumens per Watt**
**Ambient Operating Temp Range:-30 C to 70 C**
**Beam Angle: N/A**
**Color Temp: 4100K**
**Operating Temp Rating: T6 Rated**
**Minimum Operating Temp: -30 C**
**Maximum Case Temp: 90 C**

***Wattage totals are lamps only and may vary with different lamps.**

**Ratings**
Class 1 Division 1, Groups C and D
Class 1 Division 2, Group A,B,C,D
Class II Division 1- 2, Groups E,F,G
NRTL Certified to UL 844, 924
NRTL Certified to UL 1598 Marine Type
NRTL Certified to UL 595 Outdoor Marine Type (Saltwater)
NRTL Listed for United States & Canada
Listed for Paint Spray Booths*
California Title 24 Compliant

**Special Orders - Special Requirements**
Contact us for special requirements
**Toll Free: 1-800-369-6671**
**Intl: 1-214-616-6180**
**Fax: 1-903-498-3364**
**E-mail:** sales@larsonelectronics.com

**Made in the USA**

**The Larson Electronics EPL-24-2L-INTL-20WT8 Explosion Proof Fluorescent Light Fixture is NRTL Listed for United States and Canada Class 1 Division 1, Class 2 Division 1 and for hazardous locations where flammable chemical/petrochemical vapors exist or have the potential to exist.**

The EPL-24-2L-INTL-20WT8 fixture is a 2 foot long, 2 lamp, Class 1 Division 1 and

Class 2 Division 1 & 2 explosion proof fluorescent light and an ideal choice for use in applications where space is at a premium. This T6 temperature rated fixture comes standard with F20-T8 lamps and is available with a variety of lamp options which are listed below. The lamps are protected by heat and impact resistant Pyrex tubes and the fixture is constructed of copper free aluminum alloy. The lamp reflectors are corrosion resistant heavy gauge aluminum and coated with a high gloss reflective finish. This fixture is multi-voltage capable and for use in paint spray booths.
The EPL-24-2L-INTL-20WT8 provides operators in hazardous locations with a compact, reliable and affordable lighting solution that provides the best explosion proof protection available without sacrificing light quality or fixture durability.

Click here to see the LED version of this fixture



**Surface Mount (Standard)**



**Click Photo to Enlarge**



**Click Photo to Enlarge**



**Click Photo to Enlarge**

**Additional mounting options: Unless otherwise specified, our standard, most popular configuration is the bracket end mounting shown in the photos above. We also offer a pendant mount for those needing to suspend the fixture away from the ceiling surface (i.e. suspend from pipe or conduit).**



**Pendant Mount (Optional)**

Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
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Email: sales@LarsonElectronics.com
Fax: 903.498.3364



Click Photo to Enlarge



3 Conduit Positions



Click Photo to Enlarge

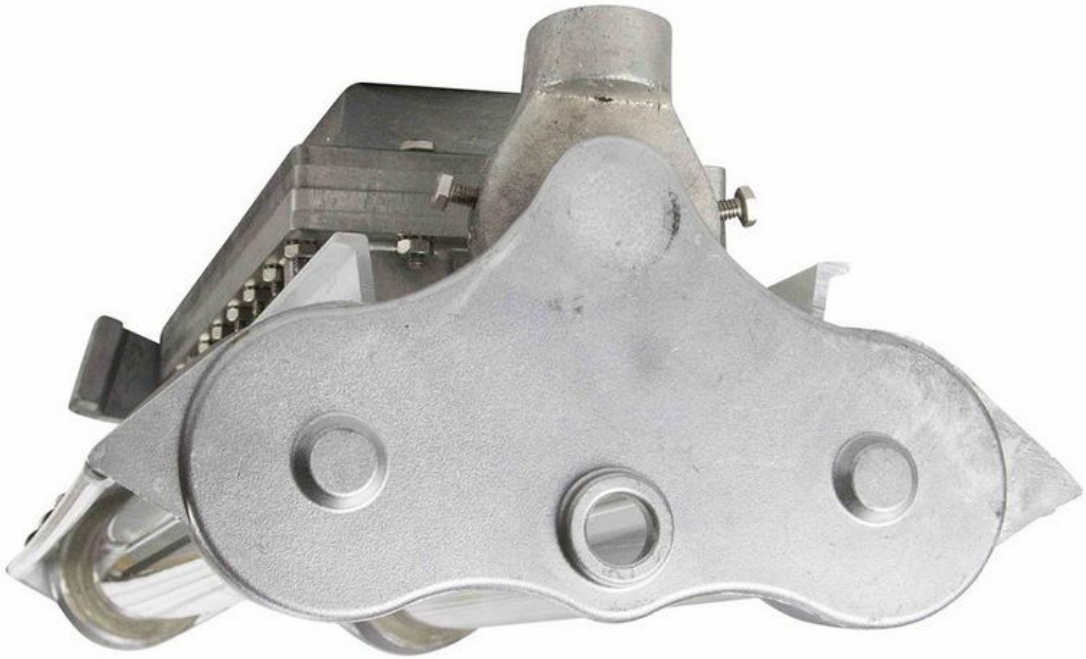
**Standard Bracket Mounts: Each bracket is cinched to the bracket mounting peg on each side of the light. The angle of the bracket is set by tightening two cap screws on either side of the bracket. The cap screws act as a set screw. The bracket itself is mounted via a single bolt hole at the top the bracket. There are two brackets, one on each end of the light. Once the brackets are mounted to a surface (ceiling, floor or wall), the light fixture can be removed from the brackets by loosening the cap screws that hold the bracket to the mounting peg. The first picture shown above illustrates the ballast side bracket and also shows the access caps for changing the bulbs. The second picture shows the bracket at the opposite end of the fluorescent light.**

## Made in USA Quality

1. Each unit dialectically tested.
2. Fixture arrives assembled and lamped to reduce installation time and cost. Adjustable mounting brackets enable the operator to choose any mounting angle for the fixture, where other models may only offer one or three choices.
3. Fixture constructed of extruded corrosion resistant copper free aluminum alloy.
4. Over-sized, finned ballast housing for 800 mA fixtures provides more heat dissipation and extends ballast life. Ballast housing easily accessible and externally mounted. Top and bottom covers secured with nuts and bolts, instead of threaded through holes, which can be damaged with dirt.
5. Heavy gauge extruded aluminum reflectors with high gloss reflective finish. Resists dents and corrosion.
6. A wrench is used to unscrew the end caps for relamping the fixture, while other models require the “tap and knock off” method to loosen the end cap.
7. Explosion proof, impact and heat resistant Pyrex tubes provide lamp protection.

## Lamp Options

**F20-T8 – 1559 lumens per bulb (2650 lumens total), 24,000 hours life, 4100 Kelvin color**









**Material Safety Data Sheet**

To Whom It May Concern,

The external housing and ballast contained within Larson Electronics LLC EPL, EPLC2, FTL, GAU, GVP, HAL, HALP, HALD, HAL-LI, HALS, HALSS, IND, and WAL industrial line of fluorescent lights without emergency backup for hazardous locations are considered "ARTICLES" under 29 CFR 1910-1200, the OSHA Hazard Communication Standard, and do not require a Material Safety Data Sheet (MSDS). This document does not expire.

Articles are specifically exempt from the regulations of this standard. OSHA defines an article as follows:

1910-1200(c) – Article means a manufactured item other than a fluid or particle:

i. Which is formed to a specific shape or design during manufacture;
ii. Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
iii. Which under normal conditions does not release more than very small quantities.

The "hazardous location" and "explosion proof" are terminology for the environment where these products will be installed. This is not to be confused with "hazardous materials;" this product does not contain any hazardous materials.

The fluorescent lamp installed within the light fixture requires a Material Safety Data Sheet (MSDS). The MSDS for fluorescent lamps are contained in the following pages. Specific MSDS depends on lamp ordered.

Regards,

Ray Smith

Ray Smith
Larson Electronics, LLC.



LARSON ELECTRONICS LLC • 9419 E US HWY 175 • KEMP, TX 75143
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PHILIPS

Philips Lighting Company

**MATERIAL SAFETY DATA SHEET**

**PRODUCT: ALTO™ Fluorescent T8 U-Bent Lamp (F32 T8/TL 800 Series)**



## SECTION 1: MANUFACTUERER

Manufacturer's Name and Address:

Philips Lighting Company
A Division of Philips Electronics
North America Corporation
200 Franklin Square Drive
P.O. Box 6800
Somerset, NJ 08875

Emergency Telephone Number: (800) 424-9300 CHEMTREC
Other Information Calls: (732) 563-3197 Safety and Compliance

## SECTION 2: HAZARDOUS INGREDIENTS

| | OSHA (PEL) $mg/m^3$ | ACGIH (TLV) $mg/m^3$ | % by Wt. |
|---|---|---|---|
| Phosphor Powder | | | |
| Nuisance Dust | 15 | 10 | Approx. 2.5 |
| Cerium Terbium Magnesium Aluminate* | N/A | 10 | Approx. .25 |
| Barium Magnesium Aluminate* | N/A | 1.0 | Approx. .5 |
| Yttrium Oxide (1314-36-9) | 1.0 | 1.0 | Approx. .5 |
| Antimony*(7440-36-0) | .5 | .5 | Approx .01% |
| Manganese*(7439-96-5) | .5 | .2 | Approx .02% |
| Mercury (7439-97-6) | .1 | .025 | < than 20 ppm |

*PEL and TLV are given for magnesium, aluminum oxide, yttrium, antimony, and mangenese. Barium aluminate is not a soluble compound. Antimony and Manganese are tightly bound within the crystal matrix of the phosphor (Calcium Phosphate).

## SECTION 3: CHEMICAL/PHYSICAL DATA

Not applicable. This item is a light bulb. The bulb is glass, the base is a coated aluminum. The coating is inert.

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## SECTION 4: FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION DATA NOT APPLICABLE -- under extreme heat, glass envelope might melt or crack.

---

## SECTION 5: REACTIVITY DATA

Stability: Lamp is stable.
Polymerization: Not applicable.
Incompatibility: Glass will react with Hydrofluoric Acid.

---

## SECTION 6: HEALTH HAZARD DATA

Not applicable to the intact lamp. Breakage of the lamp may result in some exposure to the phosphor powder dust and to a very little amount of elemental mercury vapor. No adverse affects are expected from occasional exposure to broken lamps, but as a matter of good practice, prolonged or frequent exposure should be avoided through the use of adequate ventilation during disposal of large quantities of lamps.

---

**EMERGENCY FIRST AID:** NORMAL FIRST AID PROCEDURE FOR GLASS CUTS IF SUCH OCCUR THROUGH LAMP BREAKAGE.

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## SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

Normal precautions should be taken for the collection of broken glass.

Waste Disposal Method: At the end of rated life, when this lamp is removed from service, it will be subjected to the current Toxic Characteristic Leaching Procedure (TCLP) prescribed by the Environmental Protection Agency. This test is used to determining whether an item is a hazardous waste or a non-hazardous waste under current E. P. A. definition. Philips Lighting will provide the test data on request. This result will allow the generator to evaluate all of the disposal options, which may be available in the particular state in which the generator's facility is located. The generator should check with federal, state and local officials for their guidance. In most states ALTO lamps are considered non-hazardous subtitle D waste. Philips encourages recycling of its products by qualified recyclers.

---

## SECTION 8: CONTROL MEASURES

Respiratory Protection: Appropriate dust mask 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 large quantities of lamps or handling broken lamps.

## SECTION 9: REGULATORY ISSUES

As a product these mercury containing lamps being shipped in the manufacturer's original packaging are not regulated by air, truck or ocean shipment. As a waste, spent ALTO fluorescent lamps maybe regulated in various states and local communities. This material safety data sheet does not constitute "knowledge of the waste", in certain jurisdictions. TCLP data will be furnished upon request.

# SAFETY DATA SHEET

**Issuing Date** 04-Jan-2016 **Revision Date** 04-Jan-2016 **Revision Number** 3

*The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publically available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is © 2014 UL LLC. All rights reserved.*

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product Name** **Philips T5 Flourescent Lamps**

**Other means of identification**

**Synonyms** None

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Lights, Fluorescent

**Uses advised against** No information available

**Details of the supplier of the safety data sheet**

**Supplier Name** Philips Consumer Lifestyle

**Supplier Address** 1600 Summer St
Stamford
CT
06905
US

**Supplier Phone Number** Phone:203-351-5000
Fax:888-466-7352
Contact Phone479-464-2829

**Supplier Email** David.Harris@philips.com

**Emergency telephone number**

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is an article which is a CFL bulb and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured CFL bulb.

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |

**GHS Label elements, including precautionary statements**

**Emergency Overview**

**Signal word** **Warning**

**Hazard Statements**
Harmful if swallowed



This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a CFL bulb. In case of rupture: the above hazards exist.

**Appearance** White **Physical state** Solid **Odor** Odorless

**Precautionary Statements - Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

**Ingestion**
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

**Precautionary Statements - Storage**
None

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**
96 % of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

Causes mild skin irritation

**Interactions with Other Chemicals**
No information available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

.

| Chemical name | CAS No | Weight-% | Trade Secret |
|---|---|---|---|
| Bis[2-(diphenylphosphino)phenyl] ether | 166330-10-5 | 1 - 5 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret

## 4. FIRST AID MEASURES

**First aid measures**

**General Advice** First aid is upon rupture of sealed CFL bulb.

**Eye contact** Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

**Skin contact** Wash with soap and water.

**Inhalation** Remove to fresh air.

**Ingestion** Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**
CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**
No information available.

**Explosion Data**
**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** In case of rupture: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**Incompatible Products** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls**

**Engineering Measures** Showers
Eyewash stations
Ventilation systems

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** No special protective equipment required.

**Skin and body protection** No special protective equipment required.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical and Chemical Properties**

| | | | |
|---|---|---|---|
| **Physical state** | Solid | | |
| **Appearance** | White | **Odor** | Odorless |
| **Color** | No information available | **Odor Threshold** | No information available |

| **Property** | **Values** | **Remarks Method** |
|---|---|---|
| **pH** | No data available | None known |
| **Melting / freezing point** | No data available | None known |
| **Boiling point / boiling range** | No data available | None known |
| **Flash Point** | No data available | None known |
| **Evaporation Rate** | No data available | None known |
| **Flammability (solid, gas)** | No data available | None known |
| **Flammability Limit in Air** | | |
| **Upper flammability limit** | No data available | |
| **Lower flammability limit** | No data available | |
| **Vapor pressure** | No data available | None known |
| **Vapor density** | No data available | None known |
| **Specific Gravity** | No data available | None known |
| **Water Solubility** | incompatible | None known |
| **Solubility in other solvents** | No data available | None known |
| **Partition coefficient: n-octanol/water** | No data available | None known |
| **Autoignition temperature** | No data available | None known |
| **Decomposition temperature** | No data available | None known |
| **Kinematic viscosity** | No data available | None known |
| **Dynamic viscosity** | No data available | None known |
| **Explosive properties** | No data available | |
| **Oxidizing properties** | No data available | |

**Other Information**

| | |
|---|---|
| **Softening Point** | No data available |
| **VOC Content (%)** | No data available |
| **Particle Size** | No data available |
| **Particle Size Distribution** | |

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available.

**Chemical stability**
Stable under recommended storage conditions.
**Possibility of Hazardous Reactions**
None under normal processing.
**Conditions to avoid**
None known based on information supplied.
**Incompatible materials**
None known based on information supplied.
**Hazardous Decomposition Products**
None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

| | |
|---|---|
| **Product Information** | Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:. |
| **Inhalation** | Specific test data for the substance or mixture is not available. |
| **Eye contact** | Specific test data for the substance or mixture is not available. |
| **Skin contact** | Specific test data for the substance or mixture is not available. |
| **Ingestion** | Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components). |
| **Component Information** | No information available |

**Information on toxicological effects**

| | |
|---|---|
| **Symptoms** | No information available. |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

| | |
|---|---|
| **Sensitization** | No information available. |
| **Mutagenic Effects** | No information available. |
| **Carcinogenicity** | Contains no ingredient listed as a carcinogen. |
| **Reproductive toxicity** | No information available. |
| **STOT - single exposure** | No information available. |
| **STOT - repeated exposure** | No information available. |
| **Target Organ Effects** | None known. |

**Aspiration Hazard** No information available.

**Numerical measures of toxicity Product Information**

**The following values are calculated based on chapter 3.1 of the GHS document**

**ATEmix (oral)**
500.00 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
The environmental impact of this product has not been fully investigated.

**Persistence and Degradability**
No information available.

**Bioaccumulation**
No information available

**Other adverse effects**
No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal methods** This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

**Contaminated Packaging** Dispose of contents/containers in accordance with local regulations.

**US EPA Waste Number** D009

**California Hazardous Waste Codes** M003

## 14. TRANSPORT INFORMATION

**DOT** NOT REGULATED
**Proper Shipping Name** NON REGULATED
**Hazard Class** N/A

**TDG** Not regulated

**MEX** Not regulated

**ICAO** Not regulated

**IATA** Not regulated
**Proper Shipping Name** NON REGULATED
**Hazard Class** N/A

**IMDG/IMO** Not regulated
**Hazard Class** N/A
**Marine Pollutant** Product is a marine pollutant according to the criteria set by IMDG/IMO This product contains a chemical which is listed as a severe marine pollutant according to IMDG/IMO

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

| | |
|---|---|
| TSCA | Complies |
| DSL | All components are listed either on the DSL or NDSL. |

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

### US Federal Regulations

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

| | |
|---|---|
| **Acute Health Hazard** | No |
| **Chronic Health Hazard** | No |
| **Fire Hazard** | No |
| **Sudden release of pressure hazard** | No |
| **Reactive Hazard** | No |

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

**California Proposition 65**
This product contains the following Proposition 65 chemicals.

| Chemical name | California Proposition 65 |
|---|---|
| Mercury - 7439-97-6 | Developmental |

**U.S. State Right-to-Know Regulations**

.

| Chemical name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|---|---|---|---|---|---|
| Mercury<br>7439-97-6 | X | X | X | X | X |

### International Regulations

**Canada**
**WHMIS Hazard Class**
Non-controlled

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health Hazards** 1 | **Flammability** 0 | **Instability** 0 | **Physical and Chemical Hazards** - |
| **HMIS** | **Health Hazards** 0 | **Flammability** 0 | **Physical Hazard** 0 | **Personal Protection** X |

**Prepared By**
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

**Issuing Date** 04-Jan-2016
**Revision Date** 04-Jan-2016
**Revision Note** No information available

**Disclaimer**
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**

PHILIPS

Philips Lighting Company

**MATERIAL SAFETY DATA SHEET**

**PRODUCT: T-5 Silhouette Standard and HO**

Revised: 8/02

## SECTION 1: MANUFACTURER

Manufacturer's Name and Address: Philips Lighting Company
A Division of Philips Electronics
North America Corporation
200 Franklin Square Drive
PO Box 6800
Somerset, NJ 08875

Emergency Telephone Number: (800) 424-9300 CHEMTREC
(732) 563-3197 Safety and Compliance

Other Information Calls: (732) 563-3089

## SECTION 2: HAZARDOUS INGREDIENTS

| | OSHA PEL | ACGIH | PERCENTAGE |
|---|---|---|---|
| Phosphor Powder | | | |
| Nuisance dust | 15 mg/m3 | 10mg/m3 | approx. 2.5% |
| Yttrium Oxide: Europium (68585-82-0) | 1mg/m3 | 1mg/m3 | approx. .8% |
| Barium Carbonate (0513-77-9) | 0.5mg/m3 | 0.5mg/m3 | approx. .3% |
| Manganese Carbonate (598-62-9) | 5.0mg/m3 | 5.0 mg/m3 | approx. .3% |
| Aluminum Oxide (1344-28-1) | 15 mg/m3 | 10 mg/m3 | approx. .3% |
| Cerium Oxide | | | approx. .2% |
| Gadolinium Oxide | | | approx. .2% |
| Terbium Oxide (12036-41-8) | | | approx. .2% |
| Magnesium Oxide (1309-48-4) | 15mg/m3 | 10mg/3 | approx. .2% |
| Boric Oxide (1303-86-2) | 10mg/m3 | 10mg/m3 | approx. .2% |
| Mercury (7439-97-6) | .1mg/m3 | .025mg/m3 | less than .01% |

These materials are essentially ceramic phosphors (except for the mercury). The ceramics are Barium Aluminate<Yttrium Oxide and a Cerium Terbium Borate mixture. The PELs and TLV are given where available for the base components. There is no data on the ceramic mixtures as mixtures.

## SECTION 3: PHYSICAL CHEMICAL CHARACTERISTICS

Not applicable. These items are light bulbs with 5/8 inch diameter and various lengths up to a nominal five feet (lengths are actually metric).

---

## SECTION 4: FIRE AND EXPLOSION DATA

Fire and explosion data not applicable. Under extreme heat glass envelope might melt or crack.

---

## SECTION 5: REACTIVITY DATA

| | |
|---|---|
| Stability: | Lamp is stable |
| Incompatibility: | Glass will react with Hydrofluoric Acid |
| Polymerization: | Not applicable |

---

## SECTION 6: HEALTH EFFECTS

Not applicable for the intact lamp. Breakage of the lamp may result in some exposure to the phosphor powder dust/and to elemental mercury vapor. No adverse affects are expected from occasional exposure to broken lamps, but as a matter of good practice, prolonged or frequent exposure should be avoided through the use of adequate ventilation during disposal of large quantities of lamps.

Emergency and First Aid Procedure: Normal first aid procedure for glass cuts if such occur through lamp breakage.

---

## SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

Normal precautions should be taken for the collection of broken glass.

Waste Disposal Method: At the end of rated life, when this lamp is removed from service, it will be subjected to the current Toxic Characteristic Leaching Procedure (TCLP) prescribed by the Environmental Protection Agency. This test is used to determining whether an item is a hazardous waste or a non-hazardous waste under current E. P. A. definition. These lamps would fail the TCLP test and would be considered hazardous under the Universal Waste Rules. Generators should evaluate all of the disposal options, which may be available in the particular state in which the generator's facility is located. The generator should check with federal, state and local officials for their guidance. Philips encourages recycling of its products by qualified recyclers.

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## SECTION 8: CONTROL MEASURES

Respiratory Protection: None. NIOSH-approved respirator might be used if large volumes of lamps are being broken for disposal.

Ventilation: Avoid inhalation of any airborne dust.
Provide local exhaust when disposing large quantities of lamps.

Hand and Eye Protection: Appropriate hand and eye protection should be worn when disposing of lamps or handling broken glass.

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## SECTION 9: REGULATORY INFORMATION

As a product these mercury containing lamps being shipped in the manufacturer's original packaging are not regulated by air, truck or ocean shipment. As a waste, these spent fluorescent lamps would be regulated in various states and local communities. This material safety data sheet does not constitute "knowledge of the waste", in certain jurisdictions.

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PHILIPS

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**Philips Lighting Company**

**Lamp Material Data Sheet (LMDS)**

**LMDS #: TL12-13100A**
**Date:** 12/31/2015



## Product: Philips T12 Fluorescent Lamps – All Types

All ALTO, non-ALTO, Standard, HO, Circular, U-Bent and TuffGuard
All lengths, coatings, wattages

## Section 1. Manufacturer and Contact Information

**Philips Lighting North America Corporation**
200 Franklin Square Drive
Somerset, NJ 08873-4186

24 HR Emergency Phone Number: (800) 424-9300 CHEMTREC
Other Information Calls: (800) 555-0050 Philips Lighting Technical Information

## Section 2. Hazardous Ingredients/Identity Information

These lamps contain the following materials:

| Material | (CAS #) | Exposure Limits OSHA PEL mg/m$^3$ | ACGIH TLV mg/m$^3$ | PERCENTAGE by weight |
|---|---|---|---|---|
| Glass | (65997-17-3) | 15 | 10 | ~96.0% |
| Phosphor Powder As Nuisance Dust | | 15 | 10 | ~2.5% |
| Mercury | (7439-97-6) | 0.1 | 0.025 | ~0.01% |
| Polyethylene Terephthalate (PET) | (25038-59-9) | - | - | ~3.0% |

Phosphor powders are ceramic phosphors. There is no data for the ceramics as mixtures. PET sleeving is applied to TuffGuard versions of the lamps to retain materials in the event of lamp breakage.

## Section 3. Physical Properties

Not applicable to an intact lamp. These items are light bulbs 1 1/2 inch in diameter and range from 12 to 96 inches in length.

## 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 emit toxic fumes. Use extinguishing media appropriate for combustibles in the area.

## Section 5. Reactivity

Not applicable to an intact lamp.

## 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 as a matter of good practice, prolonged exposure should be avoided through the use of adequate ventilation during the disposal of large quantities of lamps.

Guidance on cleaning up a broken lamp can be obtained from http://www2.epa.gov/cfl/cleaning-broken-cfl.

Emergency and First Aid Procedures: Apply normal first aid for glass cuts if such should occur through lamp breakage.

## Section 7. **Lamp Disposal Procedures**

Normal precautions should be taken for the collection of glass particles in the event a lamp is broken.

Waste Disposal Method: All fluorescent lamps contain some amount of mercury. When a fluorescent lamp is to be disposed, it is subject to the current EPA Toxicity Characteristic Leaching Procedure (TCLP) disposal criteria. This test is used to determine if an item can be managed as hazardous or non-hazardous waste.

Philips low-mercury ALTO fluorescent lamps are identifiable by their characteristic green end caps. Philips ALTO lamps are TCLP compliant and can be managed as non-hazardous waste. Philips will provide TCLP test data upon request.

Philips non-ALTO lamps (with silver end caps) are not TCLP compliant and should be managed as a hazardous waste under the EPA Universal Waste Rules for fluorescent lamps.

All disposal options should be evaluated with respect to federal, state, and local requirements. Before disposing of waste lamps, check with federal, state, and/or local officials for current guidelines and regulations. Philips encourages recycling of its products through qualified recycling facilities.

## 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.

## Section 9. **Regulatory Information**

As a product, these mercury-containing lamps, when shipped in the manufacturer's original packaging, are not regulated by air, truck, or ocean shipment. As a waste, these lamps may be regulated in various states and local communities. This safety data sheet does not constitute "knowledge of the waste" in certain jurisdictions.

This document supercedes previous document: LMDS TL12-13100 issued 07/10/2013

Occupational Health and Safety Administration (OSHA) Material Safety Data Sheet (MSDS) requirements for materials are not applicable to manufactured articles in which individuals would not be subjected to materials contained in the article during its normally intended use. 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.

# Frequently Asked Questions (FAQ)