### PRODUCT SAFETY DATA SHEET PSDS No. 1.4.1 INCANDESCENT LAMPS WITH LEAD-FREE SOLDER



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Sylvania brand Incandescent Lamps, manufactured by OSRAM SYLVANIA, are exempted from the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) because they are "articles." The following information is provided by OSRAM SYLVANIA as a courtesy to its customers.

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#### I. PRODUCT IDENTIFICATION

| Trade Name (as labeled): | <ul> <li>Sylvania Incandescent "White", "Daylight", Frosted, or Clear Lamps with lead-free solder.</li> <li>This data sheet covers all of the following types unless otherwise indicated: A19 (&lt;135 W), B10 (Made in U.S.A.), G25, BR, ER</li> </ul> |
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| Manufacturer:            | OSRAM SYLVANIA<br>835 Washington Avenue<br>St. Marys, PA 15857<br>(814) 834-1800  |

#### II. HAZARDOUS INGREDIENTS

Materials listed on this data sheet are contained in varying percentages in this product. Exact percentages are proprietary and will not be disclosed other than as required in accordance with the regulations.

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

If a lamp is broken, some of the following materials may be released:

| Chemical Name                       | CAS Number | Hazard                      | Exposure Limits | in Air (mg/cubic m) |
|-------------------------------------|------------|-----------------------------|-----------------|---------------------|
|                                     |            |                             | ACGIH (TLV)     | OSHA (PEL)          |
| Glass (Soda Lime)<br>Solder (Sb/Sn) |            | Respiratory Irritant        | 10.0 (2)        | 15.0 (2)            |
| Antimony (Sb)                       | 7440-36-0  | Toxic                       | 0.5             | 0.5                 |
| Tin (Sn)                            | 7440-31-5  | Respiratory Iritant         | 2.0             | 2.0                 |
| (1, 3) Lead Glass (as Pb)           | 7439-92-1  | Toxic                       | 0.05            | 0.05                |
| Aluminum (as dust)                  | 7429-90-5  | <b>Respiratory Irritant</b> | 10.0            | 10.0                |
| Copper (as dust)                    | 7440-50-8  | <b>Respiratory Irritant</b> | 1.0             | 1.0                 |
| Phenolic Resin                      |            | Physical Irritant           |                 |                     |

- (1) This chemical is 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) The lead in this product is one of the 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).]

III. PHYSICAL PROPERTIES Not applicable to intact lamp.

| IV. | FIRE & EXPLOSION HAZARDS  |
|-----|---|
|     | <ul> <li><u>Flammability:</u> Non-combustible</li> <li><u>Fire Extinguishing Materials:</u> Use extinguishing agents suitable for surrounding fire.</li> <li><u>Special Firefighting Procedure:</u> Use a self-contained breathing apparatus to prevent inhalation of dust and/or fumes that may be generated from broken lamps during firefighting activities.</li> <li><u>Unusual Fire and Explosion Hazards:</u> When exposed to high temperature, toxic fumes may be released from broken lamps.</li> </ul> |
| V.  | HEALTH HAZARD   |
|     | THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LAMPS THAT ARE<br>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:

<u>Lead</u> - Ingestion and inhalation of lead dust or fume must be avoided. Lead dust or fumes may cause irritation of the eyes and respiratory tract. Excessive lead absorption can be toxic and may include symptoms such as anemia, weakness, abdominal pain, and kidney disease. However, the chemical inertness and insolubility of this material is expected to reduce the potential for systemic lead toxicity.

All other components of this product do not pose a significant risk of respiratory and/or physical effects.

#### EMERGENCY AND FIRST-AID PROCEDURES:

<u>Glass Cuts:</u> Perform normal first aid procedures. Seek medical attention as required.

- <u>Inhalation:</u> If discomfort, irritation or symptoms of pulmonary involvement develop, remove from exposure and seek medical attention as needed.
- <u>Ingestion</u>: In the unlikely event of ingesting a large quantity of material, seek medical attention immediately. <u>Contact, Skin</u>: Thoroughly wash affected area with mild soap or detergent and water and prevent further contact. Seek medical attention as needed.
- <u>Contact, Eye:</u> Wash eyes, including under eyelids, immediately with copious amounts of water for 15 minutes. Seek medical attention.

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

#### VI. REACTIVITY 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. PROCEDURES FOR DISPOSAL OF LAMPS

If lamps are broken, ventilate area where breakage occurred. Clean-up by vacuuming or other method that avoids dust generation. Take usual precautions for collection of broken glass. Place materials in closed containers to avoid generating dust.

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It is the responsibility of the waste generator to ensure proper classification and disposal 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.

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. Based upon the NEMA\* Standard LL 4 (*Procedures for Incandescent Lamp Sample Preparation and the TCLP*) testing protocol, these lamps pass the TCLP test.

\*NEMA (National Electrical Manufacturers Association) standard may be obtained from NEMA, 1300 North 17<sup>th</sup> Street, Suite 1847, Rosslyn, VA 22209.

## VIII. SPECIAL HANDLING INFORMATION - FOR BROKEN LAMPS

VIII. SI LEIAL HANDLING IN ORMATION - FOR BROKEN LAWI 5

<u>Ventilation</u>: 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.

<u>Respiratory protection</u>: 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. <u>Eye protection</u>: OSHA specified safety glasses, goggles or face shield are recommended if lamps are being broken.

<u>Protective clothing:</u> OSHA specified cut and puncture-resistant gloves are recommended for dealing with broken lamps.

<u>Hygienic practices:</u> After handling broken lamps, wash hands and face thoroughly before eating, drinking, smoking or handling tobacco products, applying cosmetics, or using toilet facilities.

Although OSRAM SYLVANIA attempts to provide current and accurate information herein, it makes no representations regarding the accuracy or completeness of the information and assumes no liability for any loss, damage or injury of any kind which may result from, or arise out of, the use of/or reliance on the information by any person.

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| In case of questions, please call: | OSRAM SYLVANIA<br>Environmental/Safety Engineer<br>(814) 834-1800 |