MATERIAL SAFETY DATA SHEET
S23-00001
Revised: 12/2012

PRODUCT: QUARTZ INFRARED LAMPS

SECTION 1: MANUFACTURE

Manufacturer’s Name and Address: Philips Lighting Company
A Division of Philips Electronics North America Corporation
200 Franklin Square Drive
Somerset, NJ 08873-4186

Emergency Telephone No: (800) 424-9300 CHEMTREC
(800) 555-0050 Philips Lighting Technical Information

SECTION 2: HAZARDOUS MATERIALS

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>OSHA (PEL) mg/m³</th>
<th>ACGIH (TLV) mg/m³</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inert Ingredients (Quartz and other metals)</td>
<td>&gt;99+%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bromine (7726-95-6)</td>
<td>0.7</td>
<td>0.7</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

SECTION 3: PHYSICAL DATA

This item is a light bulb. Diameter is 3/8 of an inch. Length varies depending on wattage from 1 3/8 inch up to 38 inches. The tube is composed of Quartz.

SECTION 4: FIRE AND EXPLOSION DATA

CAUTION: This lamp is a heat source. Can cause serious burns. Surface temperature can reach 900°C depending on wattage. It is produced to warm or cook materials. Do not use in close proximity to combustible materials. May cause serious burns. Non-passive failures are rare, but if they occur can result in rapid ejection of very hot quartz particles.
SECTION 5: REACTIVITY DATA

Stability: Lamp is stable.
Polymerization: Not applicable to lamp. Infrared radiation can cause polymerization of certain materials as can Ultraviolet.

Reactivity: Quartz will react with hydrofluoric acid. Finger salts left of quartz can cause devitrification of the quartz if not cleaned off before lamp is started.

SECTION 6: HEALTH HAZARDOUS DATA

CAUTION: Staring at lamp in operation may be harmful to the eyes. (For those lamps in Risk group 2, lamps with Color temp. between 2000°K and 3000°K) DO NOT STARE at exposed lamp in operation. See ANSI/IESNA Standard RP27. Do not use for therapeutic or topical applications unless recommended by a physician. These lamps do generate some Ultra violet energy, precautions should be taken to prevent exposure to this radiation as well as the infrared. Halogen bulbs operate at high pressure as well as high temperature. To protect against the hazards of UV exposure or hot flying fragments use only in equipment specifying this lamp and that provides a protective shielding of glass or plastic.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

CAUTION: Do not operate in close proximity to flammable materials or those adversely affected by heat or drying. Operate only in heat resistant sockets. Protect lamp from abrasions and avoid use in excess of 10% over voltage. To avoid risks of burns or other injury, disconnect power and allow lamp to fully cool before attempting to replace.

WARNING: Use carefully. May cause serious burns. Do not use over sensitive skin areas or in the presence of poor circulation. The unattended use of infrared heat by children or incapacitated persons may be dangerous.

IR can be emitted from certain types of these lamps. Appropriate eye protection should be used when working in the vicinity of these lamps.

Lamp should not be placed closer than 18” to the surface being irradiated.

To avoid possible delayed effects upon the lens of the eye (cataractogenesis) the infrared radiation should be limited to 10 mW/cm². The ANSI/IESNA Standard RP27 spells out formulas for calculating exposure limits.
**Instructions:** Do not touch bulb with bare hands. Finger prints may result in reduced performance unless they are removed with denatured alcohol.

Socket conditions may affect lamp life. Inspect and replace socket if deterioration has occurred.

Use only in fixtures specifying this bulb type designed for the bulb’s rated wattage and voltage.

**SECTION 8: CONTROL MEASURES**

Broken lamps can be safely swept up and disposed as non hazardous waste. Taken prudent measures to avoid cuts from broken quartz.

Avoid dust exposure if breaking up large numbers of lamps. Quartz dust can cause lung damage. Use dust masks, goggles and gloves when breaking up lamps.

During operation take measures to prevent burns and retinal damage. Do not look directly at operating lamp.

Date: December 11, 2000

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