

Material Safety Data Sheet

(The socket and the electric wire of the plug are shown in appending.)

1. Manufacturer Information

Name: Iwasaki Electric Co., Ltd.

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Contact in emergency: As above

2. Product Name

Short Arc Mercury Lamp HSCR220V2H

3. Materials Identification

3-1 Single product/Mixture: Mixture

3-2 Ingredients

(A) Inert ingredients (Glass, Brass, Nickel, Ceramic, etc.)

CAS Number: None

(B) Mercury 29 mg or less

CAS Number: 7439-97-6

4. Classification of Health Hazard

4-1 Name of classification: Not applicable. This product is a light bulb.

4-2 Hazard:

This product is not hazardous. However, since the product is made of glass, if it breaks, hand may be cut by glass fragments.

4-3 Health hazard:

This product is not harmful. However, if the product breaks, discomfort due to sealed substances may be felt temporarily.

4-4 Environmental effect:

This product is considered not to cause considerably adverse effect on environment. However, since this product uses mercury, disposal of this product must be conducted in accordance with statutory regulations. For more information, please contact local authorities.

5. Emergency and First Aid

5-1 Entry in eyes:

If the product breaks and glass fragments or sealed substances enter eyes, immediately wash them with running water for 15 minutes, and then see the doctor.

5-2 Adhesion to skin:

If the product breaks and glass fragments or sealed substances adhere to the skin, immediately wash them off with running water. If the skin gets inflamed, see a doctor.

5-3 Inhalation:

If the product breaks and glass fragments or sealed substances are inhaled, immediately move to a place filled with fresh air, blow the nose and rinse your mouth. If you feel pain in the nose, throat or lungs or feel a chill, see a doctor.

5-4 Swallowing:

If the product breaks and glass fragments or sealed substances are swallowed by mistake, immediately drink a large amount of water and vomit them. See a doctor.

6. Fire Fighting Procedures

This product is non-flammable.

7. Steps in Case of Scatter or Spill

If the product breaks and glass fragments or sealed substances scatter, rake them up and keep them in an empty container.

8. Precautions for Handling and Storage

8-1 Handling

(A) This product (short arc mercury lamp, hereafter referred to as the lamp) is made of glass and must not be subjected to strong shock or cracked. Otherwise, the lamp may break.

(B) While the lamp is lit or immediately after it is turned off, it is hot and must not be touched by hand. Otherwise, you may get burned.

(C) While the lamp is lit or immediately after it is turned off, it is hot and flammable materials must not brought close to it. Otherwise, a fire may occur.

(D) When mounting a lamp or replacing it for maintenance, be sure to turn off the power supply. Otherwise, you may get electric shock.

(E) The lamp can cause serious skin burns and eye inflammation from short wave ultraviolet radiation. Do not look directly at the lamp while it is lit.

8-2 Storage

(A) The product must not be stored for long hours at a humid place where condensation may occur. The metal part of the lamp may be rusted, preventing normal electrical conduction. As a result, the lamp may fail to light or cause abnormal heat. It may also cause drop off of the arc tube due to deteriorated adhesion between arc tube and reflector.

(B) The product must not be used in atmosphere filled with hydrofluoric acid, strong acid, strong alkaline vapor or mist. The lamp may be rusted, preventing normal electrical conduction. As a result, the lamp may fail to light or cause abnormal heat. It may also cause drop off of the arc tube due to deteriorated adhesion between arc tube and reflector.

9. Exposure Preventive Measure

9-1 Allowable concentration:

This product is a light bulb. The allowance concentration is not stipulated.

9-2 Facility:

No special facility is required to handle this product. However, it should be used in given facility or device. When breaking large quantity of products (for the purpose of disposal), a facility to prevent scattering of broken glass pieces and sealed substances and a ventilation device to prevent inhalation of dust and gas produced from breaking them need to be installed.

9-3 Protection equipment:

No special protection equipment is required to handle this product. However, when breaking large quantity of products (for the purpose of disposal), eye protective glasses and dust protective mask must be worn for safety.

10. Physical/Chemical Characteristics

This product is a light bulb. It is mostly made of inert materials such as glass and metal.

10-1 Appearance : Solid. This product is a light bulb.

10-2 Odor : None

10-3 Specific gravity: N/A

10-4 Boiling point: N/A

10-5 Melting point : N/A

- 10-6 Vapor pressure: N/A
10-7 Vapor density: N/A
10-8 Solubility : This product is not soluble in water and organic solvents.

11. Hazard data

This item is non-flammable.

- 11-1 Flash point: N/A
11-2 Ignition point: N/A
11-3 Explosive limit: N/A
11-4 Combustibility: Incombustible
11-5 Ignitability (spontaneous ignition, reactivity with water): None
11-6 Self-reactivity and explosiveness: None
11-7 Dust explosiveness: None
11-8 Stability and reactivity:

This product is mostly made of inert materials such as glass and metal.
It gradually reacts with hydrofluoric acid, strong acid and strong alkali.

12. Health Hazard Data (including human symptoms and epidemiological data)

(A) Mercury

Inhalation of mercury vapor will cause loss of appetite, headache, general malaise, slight quiver, insomnia and other nervous symptom. Skin can also absorb the vapor.

ACGIH Threshold Limit Values : 0.025 mg/m³ of air (TLV-TWA)

Note) ACGIH : American Conference of Governmental Industrial Hygienists

TLV : Threshold Limit Values

TWA : Time Weighted Average

13. Environmental Effect Data

Mercury is considered to be a possible ingredient which may have adverse effect on environment if lamps are disposed without adequate caution.

13-1 Mercury

- (A) Decomposition: Not decomposed
(B) Accumulation: Accumulated
(C) Toxicity to fish: Toxic to aquatic life

Minimum fatal dose for freshwater fish: 0.5~1ppm/48H

Minimum fatal dose for saltwater fish: 0.29ppm/48H

14. Precautions for Disposal

This product is considered not to have a considerably adverse effect on environment. However, because this product contains mercury, disposal must be conducted in accordance with statutory regulations. For more information, please contact local authorities.

15. Precautions for Transportation

This product is made of glass and must not be subjected to strong shock. The lamp may break.