



Environmental information on metal-halide lamps (HMI[®], HTI[®], VIP[®])

• Product description and operating information

OSRAM metal-halide lamps are lamps in the HMI[®], HTI[®] and VIP[®] families for dc and ac operation in which the discharge arc burns at high pressure in an atmosphere of halogen and mercury vapour and rare earths. Metal-halide lamps are available in wattages from 35 W to 18000 W. The lamp families mentioned above also include HMP[®], HSR[®], HSD[®] and HMD[®] lamps.

When the high-wattage lamps are in the cold state, in other words at room temperature (21 °C), the mercury is generally present in the form of small metallic droplets in the discharge vessel (bulb). When the lamp is started, the mercury vaporises as the temperature in the bulb rises and heats up in the arc between the electrodes to around 10,000 °C. The temperature on the inside wall of the bulb is around 800 °C. When thermal equilibrium is reached (which may take from 1 to 10 minutes after the lamp has been switched on, depending on the type of lamp) the mercury vapour exerts a pressure of up to 200 bar on the bulb, depending on the type of lamp. The lamps are in compliance with directive 2002/95/EC RoHS.

Mercury fillers for the OSRAM HMI[®] and HTI[®], VIP[®] lamp families

Wattage	Mercury [mg]
≤ 250W version	max. 40
300W to 700W version	max. 120
1200W to 2500W version	max. 190
4000W to 6000W version	max. 460
12 kW to 18 kW version	max. 1120

• Health risks

Inhaling mercury or mercury compounds in vapour or powder form can lead to health problems. Mercury can also be absorbed through the skin.

• Protection against lamp breakages

To avoid health risks we recommend the following procedure in the event of a lamp exploding:

- In the immediate vicinity leave the room to avoid inhaling mercury vapour.
- The room should be carefully ventilated for 20 to 30 minutes at least.
- Once the luminaire has cooled down and certainly before it is used again, all residual mercury must be thoroughly removed from the inside of the luminaire.

To avoid contact with the skin, we recommend the use of disposable gloves. Liquid mercury can be cleared up with commercial adsorption agents.

• Disposal of used metal halide lamps

Since metal-halide lamps contain noxious substances (particularly mercury) they have to be disposed of in Europe as special waste under

EWC Code 20 01 21* "Fluorescent tubes and other mercury-containing waste"

Metal-halide lamps are affected in EU by the scope of WEEE and can be disposed free of charge from private households and small consumers at all communal disposal facilities. More information under www.osram.com/about_us/environment/weee/index.html and your national OSRAM partner.

In other countries the relevant national regulations must be followed.

• OSRAM contact address

If you need further information please contact your OSRAM sales partner or the Environmental Affairs & Technical Safety in Munich:

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