



Environmental information for mercury vapour lamps (HQL®)

• Product description and operating information

HQL® lamps are lamps from the OSRAM family of mercury vapour lamps in which the discharge takes place in an atmosphere of mercury vapour. The light colour is determined by the phosphor coating on the bulb. Mercury vapour lamps are available in wattages from 50 W to 1000 W.

Mercury fillers for the OSRAM HQL® lamp families

	mg Mercury
Wattage 50 - 250	max. 20
Wattage 500 -1000	max. 100

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 discharge vessel rises due to the argon discharge between the ignition electrode and the main electrode and thereby provides charge carriers for the arc. Within the first few minutes the mercury heats up in the arc between the electrodes and vaporises completely. When thermal equilibrium is reached the pressure in the discharge vessel is between 1 and 10 bar, depending on the rated wattage.

The lamps must not be exposed to spray water and must be operated on control gear (but without an igniter!).

• Health risks

Inhaling mercury in vapour or powder form can lead to health problems. Mercury can also be absorbed through the skin. Phosphors released to the atmosphere may cause skin irritation.

The lamp may only be operated with its outer bulb intact as otherwise the intense UV radiation escaping from the lamp may damage eyes (even if viewed indirectly) and cause skin irritation. UV radiation is INVISIBLE to the human eye. Irritation may not occur until hours after exposure.

• Protection against lamp breakages

The lamp must be switched off immediately if the bulb breaks. Measures must be taken to ensure that the lamp cannot be switched on again in this state. The wires in the lamp are live. Before removing the remains of the lamp, make sure that power is disconnected (risk of fatal electric shock).

To avoid health risks we recommend the following procedure in the event of a discharge vessel breaking:

- Remove all the bits of the discharge vessel
- Carefully ventilate the room
- 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.

• Disposal of used mercury vapour lamps

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

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

Mercury vapour 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 Environmental Affairs & Technical Safety in Munich:

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