



Environmental information for HNS® germicidal lamps

• Product description

HNS® germicidal lamps are fluorescent lamps from the family of low-pressure discharge lamps that operate on the following principle: After ignition, mercury vapour in the glass tube emits UV radiation. This radiation has a high proportion of short-wave UVC radiation, which kills bacteria and is therefore used to sterilise equipment. The 7W and 11W versions of the HNS® germicidal lamps have compact fluorescent lamp bases, whereas the 15W to 55W versions have fluorescent lamp bases. Correct operation is only possible if the lamps are used in equipment specially designed for them. Control gear ensures the correct luminous flux is emitted.

When the lamps are in the cold state, in other words at room temperature, the mercury (between 4 and 8 mg depending on the type) is generally present in the form of small metallic droplets in the discharge vessel (bulb). When the lamp is switched on the mercury vaporises as the temperature of the bulb rises, and the mercury vapour needed for the discharge fills the entire bulb. Mercury is released if the lamp breaks. The lamps are in compliance with directive 2002/95/EC RoHS.

• Health risks

The radiation from HNS® germicidal lamps poses a health risk. They can cause conjunctivitis and sunburn after only brief exposure. The skin and eyes must be protected against direct exposure. Protective clothing must be worn if HNS® germicidal lamps are used in enclosed spaces that do not offer direct protection against exposure. Inhaling mercury or mercury compounds in vapour or powder form following breakage of a lamp 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 breaking, as in the case of fluorescent lamps for general lighting:

- Remove all the bits, preferably with a vacuum cleaner
- Carefully ventilate the room
- Remove all broken lamp components from the luminaire before reusing the luminaire. To avoid contact with the skin, we recommend the use of disposable gloves.

• Disposal of used fluorescent lamps

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

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

Fluorescent 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:

Tel.: +49 (0) 89 / 6213-3309

Fax: +49 (0) 89 / 6213-3463

Email: umwelt@info.osram.de

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