

Safety Data Sheet for Transportation, Cs Lamp

Not subject to Dangerous Goods Regulation

0. Advisory Note

Safety Data Sheet for Transportation is not subject to national regulation, provides knowledge and advice regarding practices of transportation, in relation with dangerous goods regulation. This document is subject to revision without further notice. For use and handling of lamps, see user information of retail package or contact your SHIMADZU sales manager.

1. Product and Company Identification

1.1 Name of Product

This type of discharge lamp generates light between two metal electrodes. For stable and defined operation, glass bulb contains a low quantity of hazardous substances (Solid/Liquid Cesium: max 28mg). There are no other significant substances contained.

Part Number: SSSOTD013927302
Product Name: Cs LAMP, CS/10 for REFRACTOMETER
Manufacturer Model Name: OSRAM SPECTRAL LAMP CS

1.2 Company Identification

Company Name: Shimadzu Device Corporation
Address: 250 Tokimata, Iida-shi, Nagano 399-2563, Japan
Phone: +81-265-26-9121
Facsimile Number: +81-265-26-9120
Emergency Contact: kalnew@group.shimadzu.co.jp
Manufacturer Name: OSRAM GmbH (80807 Munich, Germany)

1.3 Recommended Applications

Measurement of glass refractive indices

2. Hazards Identification

Lamps are manufactured articles for end consumers, subject to corporate quality management and delivered in safe packaging. Regulation for hazardous substances is not applicable for consumer products.

- There are no immediate hazards to health by substances contained in the lamp, as long as the lamp bulb is undamaged.
- In case of broken lamp bulbs, avoid contact of skin with the sharp shades of glass or metal.
- Immediately after bulb is broken, the low quantity of hazardous substance will be affixed at the inner surface of the glass bulb or its components or will fade away into environment. There is no potential of posing significant risk for health by this low quantity of substance.

3. Transportation Information

Transportation in SHIMADZU retail packaging is not subject to dangerous goods regulation. This lamp type contains material meeting classification criteria of dangerous goods but below threshold for declaration.

3.1 International Regulations (IATA)

UN No.: Not applicable
Ocean Polluting Substances: Not applicable

4. Risks of Fire and Fire-Fighting Measures

4.1 Risks of Fire and Explosion

Lamps and all its components are not flammable. In case liquid metal in glass bulb or its compound spilt, use drying sand and avoid water spray

4.2 Extinguishing Media

Use extinguishing agent suitable for type of surrounding fire.

5. Accidental Release Measures

In case of an accident, stay calm and care for people in the near environment. There are no immediate hazards to health by lamps as long as the lamp bulb is undamaged.

In case of broken lamp bulb:

- Avoid contact of skin with sharp shades of glass or metal.
 - o Use of gloves recommended protecting skin from injuries.
 - o If skin is injured, apply medical service as appropriate.
 - If accident happened in closed room, ventilate the near environment with fresh air.
 - Clean the ground and other surfaces.
 - o Do not eat during cleaning procedure to avoid swallowing small parts of the broken lamp.
 - o Carefully remove all fragments of the broken lamp.
 - o Use of vacuum cleaner recommended if fragments on uneven or rough surface.
 - Dispose lamp fragments as locally regulated.
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6. First-Aid Measures

This lamp type does not contain much of hazardous substances. In case of broken lamps:

- Skin injury: apply medical service as appropriate.
 - Eye contamination with solid material: rinse out with plenty of water for 1 minute with the eyelid wide open. Look for help by an ophthalmologist if medical service is necessary.
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7. Disposal Considerations

For disposal of lamps or its components, follow local regulation for disposal. Especially in member states of the European Union, there is national regulation based on the Waste Electrical and Electronic Equipment Directive (WEEE Directive 2012/19/EU).

8. Other Information

Read also attached reference document, Manufacturer's MSDS for Transportation.

"Material Safety Data Sheet for Transportation: OSRAM Spectral Lamps"

Light is OSRAM

OSRAM**Material Safety Data Sheet for Transportation****OSRAM Spectral Lamps**

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Document status: released

Edition version: 4.0

Date of publication: 12 April 2019

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Material Safety Data Sheet for Transportation is not subject to national regulation, provides knowledge and advice regarding practices of transportation, in relation with dangerous goods regulation. This document is subject to revision without further notice. For use and handling of lamps, see user information of retail package or contact your OSRAM sales manager. For environmental issues, find more information at OSRAM homepage www.osram-group.com section "sustainability".

1 Identification of Lamp Type

This type of discharge lamp generates light between two metal electrodes. For stable and defined operation, glass bulb contains a low quantity of hazardous substances (below 1 g). There are no other significant substances contained.

Figures show illustrative examples of this lamp type.



Lamps of this type:

SPECTRAL LAMP CD
 SPECTRAL LAMP CS
 SPECTRAL LAMP HE
 SPECTRAL LAMP HG
 SPECTRAL LAMP NA
 XERADEX® LAMP L40

2 Hazards Identification

Lamps are manufactured articles for end consumers, subject to corporate quality management and delivered in safe packaging. Regulation for hazardous substances is not applicable for consumer products.

- There are no immediate hazards to health by substances contained in the lamp, as long as the lamp bulb is undamaged.
- In case of broken lamp bulbs, avoid contact of skin with the sharp shades of glass or metal.
- Immediately after bulb is broken, the low quantity of hazardous substance will be affixed at the inner surface of the glass bulb or its components or will fade away into environment. There is no potential of posing significant risk for health by this low quantity of substance.



3 Transport Information

Transportation in OSRAM retail packaging is not subject to dangerous goods regulation. This lamp type contains material meeting classification criteria of dangerous goods but below threshold for declaration.

4 Risks of Fire or Explosion

Lamps and all its components are not flammable.

5 Accident Caution Activities

In case of an accident, stay calm and care for people in the near environment. There are no immediate hazards to health by lamps as long as the lamp bulb is undamaged.

In case of broken lamp bulb:

- Avoid contact of skin with sharp shades of glass or metal.
 - Use of gloves recommended protecting skin from injuries.
 - If skin is injured, apply medical service as appropriate.
- If accident happened in closed room, ventilate the near environment with fresh air.
- Clean the ground and other surfaces.
 - Do not eat during cleaning procedure to avoid swallowing small parts of the broken lamp.
 - Carefully remove all fragments of the broken lamp.
 - Use of vacuum cleaner recommended if fragments on uneven or rough surface.
- Dispose lamp fragments as locally regulated.

6 Fire Fighting Measures

Use extinguishing agent suitable for type of surrounding fire.

7 First Aid Measures

This lamp type does not contain hazardous substances. In case of broken lamps:

- Skin injury: apply medical service as appropriate.
- Eye contamination with solid material: rinse out with plenty of water for 1 minute with the eyelid wide open. Look for help by an ophthalmologist if medical service is necessary.

8 Comment on Disposal in European Union and beyond

For disposal of lamps or its components, follow local regulation for disposal. Especially in member states of the European Union, there is national regulation based on the Waste Electrical and Electronic Equipment Directive (WEEE Directive 2012/19/EU).
