Since 1959

# SAFETY DATA SHEET (SDS)

## MATERIAL SAFETY DATA SHEET (MSDS)

### I. Product and Company Identification

Trade Name: CEC High Intensity Discharge Automotive Lamps Applicable lamp types: D1S, D1R, D2S, D2R, D3S, D3R, D4S, D4R.

Manufacturer: CEC INDUSTRIES LTD 599 BOND STREET LINCOLNSHIRE, IL 60069 USA.
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### II. Health and Safety Information

**Lamp materials exposure**

There are no known health concerns that result from exposure to intact lamp or to occasional exposure to broken lamps. The possibility of glass cuts is the primary hazard of broken lamps. The constituents identified below are contained within the durable inner arc tube of the lamp.

**Mercury exposure**

The air concentration of mercury resulting from the breakage of one or a small number of lamps should result in no significant exposure to the individual. If breaking a large number of lamps for disposal, storing broken arc tube or spent lamp, see Disposal Information in Section III and Special Handling Information for Broken Lamps in Section V.

**Impact of low-level radiation - thorium**

The radioactive thorium metal is combined with tungsten electrodes located in the lamp. These insignificant amounts of thorium are identified as radioactive source material. Radiation does not leave the intact arc tube. One or a small number of lamp breakage does not involve a significant risk to the individual.

The IAEA - TECDOC1 - 1679 document declares that the effects of radiological materials in lamps to society and to the lighting industry and other employees, in connection with the lamp for the whole life cycle - including waste disposal - has been shown to be insignificant .

## III. Disposal Information

CEC Industries recommends that all lamps containing mercury be recycled.
Each arc tube of D1S, D1R, D2S, D2R Xenon HID Automotive Lamps contains mercury.

1 Exemption from small quantity control of radioactive materials (IAEA-TECDOC-1679, 2012) available on http://www-pub.iaea.org/books/iaeabooks/8834/Exemption-from-Regulatory-Control-of-Goods- Containing-Small-Amounts-of-Radioactive-Material

In European Union Member States these lamps shall be disposed and collected separately from universal waste. Lamps will be marked with the crossed wheelie bin logo according to the European standard EN 50419. Please refer to the provisions of local regulations to ensure compliance.

If breaking a large number of lamps for disposal, storing broken arc tube or spent lamp, appropriate monitoring, controls and equipment should be implemented to control airborne mercury and dust levels or surface contamination. Such work should be done in a well- ventilated area and local exhaust ventilation or personal protective equipment may be needed. Personal protective equipment is recommended, including the use of gloves as well.

## IV. Transport of lamps

The Xenon High Intensity Discharge Automotive lamps contain substances that are regulated by HMT (Hazardous Materials Table) special circumstances.

### Mercury

Mercury may be regulated as a hazardous material in transportation. On January 1st, 2013, the unique UN identification number for mercury contained in manufactured articles such as
lamps was changed from UN2809 Class 8, to UN3506 Class 8 with a 6.1 toxic subsidiary risk. The regulatory limits for UN3506 are transportation mode specific, with the limits for air
shipment being the most restrictive. Air limits are based on the amount of mercury per lamp as well as the amount of mercury per package.

### Low-level radiation material

The inner arc tubes of Xenon High Intensity Discharge Automotive lamps also contain small quantities of the low-level radiation emitting thorium metal in addition to mercury. These lamps may be HMT regulated depending on the makeup of the individually shipped consignment. Certain consignments may be classified as UN2911 excepted package, with certain packages in those consignments regulated as UN3506. Consult appropriate shipping guidance for package regulatory limits.

## V. Special Handling Information for Broken Lamps

• If the arc tube is broken, ventilate the area.
• Use adequate general and local exhaust ventilation to minimize exposure levels.
Open windows and doors and use fans to displace vapors
• Use appropriate respirator.

• Use appropriate safety glasses or goggles, puncture resistant gloves and protective clothing.
• Avoid generating dust during clean-up.
• Avoid mercury dust production. Do not spray water on mercury dust to avoid mercury spills. Use specially equipped mercury vacuum cleaner systems, or pipettes.
• Do not use standard vacuum cleaners during clean-up. Optionally, sweep up all particles, or using disposable gloves wipe up with a damp cloth or paper towel and place all waste in puncture resistant closed container or double-bag.
• Practice personal hygienic protocol. Wash hands thoroughly before eating, drinking, smoking, handling tobacco products, applying cosmetics, or using toilet facilities. Dispose of contaminated clothing.

• Seek competent medical assistance for any concerns or if exposures are experienced.

## VI. Other Information

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