

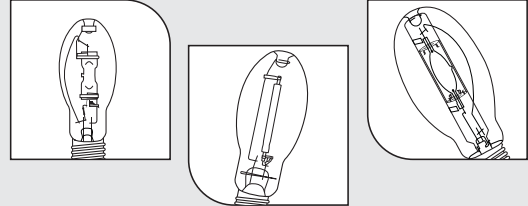
## Material Safety Data Sheet (MSDS)

MSDS-001 - Issue Date: 6-30-09

### HID – Metal Halide and High Pressure Sodium Lamps

#### INFORMATION AND APPLICABILITY

Technical Consumer Products believes that under the Occupational Safety and Health Administration (OSHA) Hazards Communications Standard, a lamp (light bulb) is exempted as an “article”, and that as such, does not require an MSDS. The original OSHA Standard defined an article as something that: 1) is formed to a specific shape and design, 2) has end use functions dependent upon its shape and design, and 3) does not release or otherwise result in an exposure to a hazardous chemical under normal conditions of use. In February 1994, OSHA amended the Hazard Communication Standard and modified part 3 of the above to read: 3) does not release more than very small quantities of a hazardous chemical under normal conditions of use. State and local regulations also contain similar exemptions for such articles.



Materials contained in the lamp are not released during normal use and operation. The following information is provided as a courtesy to our customers.

#### PRODUCT AND COMPANY IDENTIFICATION

Description: Trade Name (as labeled), no ballast / adapter.

Manufacturer: Technical Consumer Products, Inc.  
325 Campus Drive | Aurora, Ohio 44202 | 1-800-324-1496

#### COMPOSITION/INFORMATION ON INGREDIENTS

THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LAMPS THAT ARE INTACT.

Lamp Assembly – Glass and Metal – The glass is made from soda lime similar to that used throughout the glass industry for other common consumer items. The metals for end caps and filaments are generally made from various amounts of aluminum, tin, lead, copper, zinc, and nickel. None of these materials would present a potential hazard in the event of breakage of the lamp, aside from the hazard due to broken glass.

Mercury – Small amounts of mercury is used in all HID lamps. Generally around 0.025% by weight. The amount of mercury present in any given lamp will vary depending on both the size of the lamp and on the equipment that was used in its manufacture. TCP continues to reduce the amounts of mercury used in HID products.

**PHYSICAL PROPERTIES** Not applicable to intact lamp.

**EXPLOSION HAZARDS** This item is a light bulb; it has no fire data. Under extreme heat, outer envelope might melt or crack.

**HEALTH CONCERNS** THERE ARE NO KNOWN HEALTH HAZARDS FROM EXPOSURE TO LAMPS THAT ARE INTACT. No adverse effects are expected from occasional exposure to broken lamps. As a matter of good practice, avoid prolonged or frequent exposure to broken lamps unless there is adequate ventilation. The major hazard from broken lamps is the possibility of sustaining glass cuts.

<b>Mercury</b>	The mercury in the air as a result of breaking one or a small number of HID lamps should not result in significant exposures to an individual. However, when breaking a large number of lamps for disposal, appropriate industrial hygiene monitoring and controls should be implemented to minimize airborne levels or surface contamination. We recommend a well-ventilated area, and local exhaust ventilation or personal protective equipment.
<b>Glass</b>	Glass dust is considered to be physiologically inert and as such has an OSHA exposure limit of 15-mg/cubic meter for total dust and 5-mg/cubic meter for respirable dust. Perform normal first aid procedures. Seek medical attention as required.
<b>Inhalation</b>	If discomfort, irritation, or symptoms of pulmonary distress occur, remove from exposed area and seek medical attention.
<b>Ingestion</b>	In the unlikely event of ingestion of a large quantity of material, seek medical attention.
<b>Contact Eye/Skin</b>	Wash eyes/skin, including under eyelids, immediately with copious amounts of water and seek medical attention.

#### PROCEDURES FOR DISPOSAL OF LAMPS

For field disposal the lead in the soldering is considered hazardous waste and must be disposed of by applicable federal, state and local regulations.

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