# MATERIAL SAFETY DATA SHEET

**Fusion UV Systems, Inc.**  
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Gaithersburg MD 20878-1357  

**MSDS P/N 528050**  
Rev. B  
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Emergency Telephone Number 1-800-486-9057

## PART I, MATERIAL IDENTIFICATION

<table>
<thead>
<tr>
<th>Product:</th>
<th>Fusion Microwave Ultraviolet Light Bulb</th>
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<tr>
<td>Common Name:</td>
<td>UV Bulb, Microwave Bulb</td>
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## PART II, HAZARDOUS INGREDIENTS

Gasses and trace elements present are in extremely small quantities and are not deemed to be a hazard. A small amount of elemental mercury and/or radioactive material may be present.

- **Mercury CAS REG**: 7439-97-6
- Exact components are proprietary and constitute a trade secret.

## PART III, PHYSICAL DATA

Gasses, trace elements, and mercury are contained in a quartz envelope. Pressure may be below or above atmosphere pressure. Operating bulbs will have pressures above atmosphere pressure.

## PART IV, FIRE & EXPLOSION DATA

Materials present are not combustible or explosive.

## PART V, HEALTH HAZARD INFORMATION

Use in a ventilated area. Should a quartz envelope be broken, use an approved mercury cleanup kit for any mercury that may be present. There is insufficient radioactive material present to constitute a health hazard.

**MERCURY HEALTH HAZARD INFORMATION**

Skin: May cause skin irritation. May be absorbed through the skin in harmful amounts. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.
Ingestion: may cause gastrointestinal irritation with nausea, vomiting, and diarrhea. May cause effects similar to those for inhalation exposure.

Inhalation: Causes respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause central nervous system effects including vertigo, anxiety, depression, muscle incoordination, and emotional instability. May cause severe respiratory tract irritation.

Chronic: [Not available.] Chronic exposure to mercury vapors may cause permanent central nervous system damage. Early symptoms include weakness, fatigue, anorexia, loss of weight, and disturbances of gastrointestinal function. Unintentional tremors of the fingers, eyelids, lips, and entire body may occur at later stages. Behavioral and personality changes, increased excitability, loss of memory, insomnia and depression may occur.

FIRST AID MEASURES FOR MERCURY

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Wash mouth out with water. Get medical aid.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively. The use of OMSA or BAL as antitotal treatment should be determined only by qualified medical personnel (Medical Toxicology, 1988).
PART VI, REACTIVITY INFORMATION

Stability:
These are stable compounds. They will not undergo hazardous polymerization.

Conditions to Avoid:
None known other than do not break quartz envelope.

PART VII, SPILL, LEAK & DISPOSAL PROCEDURES

Disposal should be made in accordance with federal, state, and local requirements with appropriate Personal Protective Equipment. Should a bulb be broken, any mercury should be cleaned up and disposed of per normal heavy metal environmental requirements.

Intact bulbs may be returned to Fusion UV Systems, Inc. in their original containers for disposal. Bulbs may be disposed of similar to fluorescent lamps (per federal, state, and local regulations, etc.).

PART VIII, SPECIAL PROTECTION INFORMATION

Safety Glasses and impermeable gloves are recommended during handling and cleanup operations.

PART IX, SPECIAL PRECAUTIONS & COMMENTS

Handling & Storage: Store in the original container in a cool dry place. Protect from light, heat, and physical damage.

Other Precautions: Wash hands thoroughly after handling if envelope is broken before eating, drinking, smoking, or applying cosmetics.

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