

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION OF SUBSTANCE AND COMPANY

**Product Name:** UV Discharge Lamp 7800710 . CX154-00860

**Chemical Name:** Intact Sealed Article

**Manufacturer/Supplier:** Primarc Limited Phone: +44 (0) 1753 558001  
552 Fairlie Road Fax: +44 (0) 1753 558002  
Slough  
Berkshire, SL1 4PY, U.K.

**Emergency Phone Numbers:** Primarc Limited +44 (0) 7968 802133

## SECTION 2 - INFORMATION ON COMPONENTS

### Hazardous and regulated components

CAS	Wt	Component	USA OSHA PEL	UK WEL
14808-60-7		Quartz glass	N/A	N/A
7439-97-6	490mg	Mercury (Vapour)	TLV 0.05 mg/m <sup>3</sup> IDLH 10	US Typical TLV / TWA 0.05 mg/m <sup>3</sup> Typical PEL 0.1 mg/m <sup>3</sup>
1314-20-1	21.8mg	Thorium	5 E-13 microcurie Th per ml air	NO UK WEL
7774-29-0	0.25mg	Mercury Iodide (Hgl <sub>2</sub> )	0.05 mg/m <sup>3</sup>	NO UK WEL

Ultraviolet radiation - 8 hour TWA is 0.1 microwatt / cm<sup>2</sup>.

UV discharge lamps are sealed articles and are exempt from the HazCom requirement of OSHA.

## SECTION 3 - HAZARDS IDENTIFICATION

### Effects of Overexposure:

**EYES:** Conjunctivitis from overexposure to the light source; eye irritation from inhalation of ozone. Refer to the coating MSDS for additional hazards.

**SKIN:** Erythema (sunburn) which may be exaggerated with the use of sensitizing pharmaceutical and herbal products. Refer to the coating MSDS for additional hazards.

**INHALATION:** None from UV discharge lamp, inhalation of ozone may irritate the nose or cause headache and nausea. Refer to the coating MSDS for additional hazards.

**ORAL:** None from UV discharge lamp; inhalation of ozone may irritate the throat. Refer to the coating MSDS for additional hazards.

# MATERIAL SAFETY DATA SHEET

## SECTION 4 - FIRST AID MEASURES

**Skin:** Conjunctivitis  
**Eyes:** Welders flash treatment  
**Inhalation:** No first aid should be needed due to ultraviolet exposure  
**Ingestion:** No first aid should be needed due to ultraviolet exposure  
**Comments:** Additional hazards may be created from exposure to the coating

Effects of overexposure to skin and eyes usually disappear in 48 hours. Some individuals may have an abnormally increased sensitivity to the effects of UV light. This may be the result of a sensitizing chemical or prescribed drug. Sensitization will result in an exaggerated sunburn response. Further occupational exposure to UV should be limited and the individual should be referred to a physician.

## SECTION 5 - EXPLOSION AND FIRE FIGHTING MEASURES

**Flash Point:** N/A  
**Extinguishing Media:** N/A  
**Special Fire Fighting Procedures:** N/A  
**Unusual and Explosion Hazards:** None known  
**Hazardous Decomposition Products:** None known

## SECTION 6 - ACCIDENTAL RELEASE / SPILL PROCEDURES

### Steps to be taken in case material is released or spilled:

Broken UV discharge lamps should be placed in a sealed container and handled/disposed as hazardous waste.

## SECTION 7 - HANDLING AND STORAGE

**Handling:** A small amount of mercury is contained in the quartz tube of UV discharge lamps. Due to the toxicity of mercury, UV discharge lamps should be handled so that breakage is minimized.

**Storage:** Scrap UV discharge lamps may be stored for one year before being shipped for recycling.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Install UV discharge lamps following manufacturer's guidance. Operators should be trained to fully understand the recommended operating and safety procedures. Ozone generated by the process requires negative pressure exhaust.

### Personal Protective Equipment for Routine Handling:

Safety glasses with side shield and with protection against ultraviolet light are recommended. Contact lenses should not be worn. Barrier creams or polyethylene skin protection are recommended. Industrial processes must be evaluated for additional safeguards.

# MATERIAL SAFETY DATA SHEET

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical form:	Solid
Colour:	Clear
Odour:	None
Specific Gravity @25°C:	N/A
Viscosity:	N/A
Freezing/Melting Point:	N/A
Boiling Point:	N/A
Vapour Pressure @25°C:	N/A
Solubility in Water:	Insoluble
pH:	N/A
Volatile content:	N/A

Note: Energized UV discharge lamp surfaces are hot.

## SECTION 10 - STABILITY AND REACTIVITY

Stability:	UV discharge lamps are stable
Conditions to avoid:	Photosensitizing agents when UV discharge lamps are energized.
Hazardous Polymerization:	Will not occur.
Incompatible materials:	None

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Acute Toxicology Data for Product:

No data available.

## SECTION 12 - ECOLOGICAL INFORMATION

### Environmental Fate and Distribution:

No data available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

### Waste Disposal Methods:

Used UV discharge lamps should be handled / disposed in accordance with federal, state and local Regulations. UV discharge lamps may be returned for recycling with prior authorization.

### Resource Conservation and Recovery Act (RCRA) / Universal Waste:

UV discharge lamps that are not recycled must be handled / disposed in accordance with Resource Conservation and Recovery Act (RCRA). Each state has specific regulations that apply to the management of spent UV discharge lamps. Recycling in the US must be in accordance with the Universal Waste rule.

# MATERIAL SAFETY DATA SHEET

## SECTION 14 - TRANSPORTATION INFORMATION

**DOT Shipping Name:** Surface Shipments - Not Regulated. Air Shipments are regulated under DOT 49CFR: Mercury contained in manufactured articles - Hazard class 8.0 (Corrosive Substances), UN 3506, Exempt from special packaging requirements providing that each package contains no more than 30g of mercury. Packages must be so designed and constructed such that when subjected to drop tests from a height of not less than 0.5m the packages must still be fit for transport and there must be no damage to the contents. The standard packaging used by Primarc / Baldwin UV meets this requirement.

**IATA Shipping Name:** Exempt from special packaging requirements providing that each package contains no more than 30g of mercury. Packages must be so designed and constructed such that when subjected to drop tests from a height of not less than 0.5m the packages must still be fit for transport and there must be no damage to the contents. The standard packaging used by Primarc / Baldwin UV meets this requirement.

## SECTION 15 - REGULATORY INFORMATION

### Risk phrases for Mercury

R21 - Harmful in contact with skin  
R22 - Harmful if swallowed  
R23 - Toxic by inhalation  
R33 - Danger of cumulative effects

### Risk Phrases for Mercury Iodide (HgI<sub>2</sub>)

R26 - Very toxic by inhalation  
R27 - Very toxic in contact with skin  
R28 - Very toxic if swallowed  
R33 - Danger of cumulative effects

### Risk Phrases for Thorium Oxide

R22 - Harmful if swallowed

### Safety Phrases for Mercury

S61 - Avoid release to the environment

### Safety Phrases for Mercury Iodide

S13 - Keep away from food, drink and animal foodstuffs  
S28 - After contact with skin, wash immediately with plenty of soap  
S45 - In case of accident or if you feel unwell, seek medical advice immediately

### Safety Phrases for Thorium Oxide

S37 - Wear suitable gloves  
S46 - If swallowed seek medical advice immediately

**EPA:** RCRA / Universal Waste . UV discharge lamps that are to be recycled should be placed in the original container or packaged to prevent breakage. The outer container should be dated and marked "Universal Waste".

# MATERIAL SAFETY DATA SHEET

**OSHA:** Ultraviolet exposure is limited to 1 milliwatt per centimetre squared. Ozone exposure is regulated at 0.1 parts per million (ppm).

## **SECTION 16 - OTHER INFORMATION**

Energized UV discharge lamps are photosensitizing.

## **NOTICE**

Information contained herein has been obtained from recognized technical sources. Compliance with all federal, state, and local laws and regulations remains the responsibility of the user.