SAFETY DATA SHEET
UVMATIC 8” LAMP & UVMATIC 11” LAMP
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Revision Date: 16/02/2021

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product name:	UVMATIC 8” LAMP UVMATIC 11” LAMP
Synonyms:	UV, UVC, Lamp
Supplier:	DDC Dolphin Ltd
Address	The Fulcrum Vantage Way Poole Dorset BH12 4NU UK Tel: +44 (0)1202 731555 Fax: +44 (0)1202731666 Email: sales@ddcdolphin.com
Emergency telephone:	NHS 111 NHS Direct Wales 08454647
Chemical name: Chemical family: Chemical formula	Intact Sealed Article, Mercury; Metallic Mercury; Quicksilver; Hydrargyrum Transition metal (elemental mercury) Hg
Product use:	UVMATIC 8” LAMP & UVMATIC 11” LAMP is used in the following products, UVMATIC Pure Air & UVMATIC Pure Air+

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Mercury, Quartz Glass

CAS NO.	**WT**	**WT Percentage**	**Component**
7439-97-6	<15mg	Approximately 0.04%	Mercury
14808-60-7	N/A	Approximately 99.96%	Quartz glass (inert)

EXPOSURE LIMITS

		mg/m³
Mercury:	**OSHA PEL-TWA (8hr) [1]:**	0.1 mg/m³
	OSHA PEL-CEILING [1]:	0.1 mg/m³
	ACGIH TLV-TWA (8hr) [2]:	0.025 mg/m³
	NIOSH REL-TWA (10hr) [2]:	0.05 mg/m³
Quartz glass:	None	

SECTION 2 NOTES

The ultraviolet radiation 8-hour TWA is 0.1 μw/cm2. UV lamps are sealed articles, and no material contained in a lamp is released during normal use and operation. However, breakage may result in exposure, including mercury. Lamps are exempt from the RoHS requirement and from the HazCom requirement of OSHA. Lamps are not designed or intended for illumination.

SECTION 3: HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES:	Conjunctivitis from overexposure to the light source; eye irritation from inhalation of ozone.
SKIN:	Erythema (sunburn) which may be exaggerated with the use of sensitizing pharmaceutical and herbal products.
INHALATION:	None from lamp; inhalation of ozone may irritate the nose and lungs or cause nausea and headache.
ORAL:	None from lamp; inhalation of ozone may irritate the throat.

ACUTE HEALTH HAZARDS:

Elemental mercury, liquid and vapor, is toxic due to its liquid solubility, lack of charge, and membrane permeability. Inhaled vapours (80%) diffuse rapidly through alveolar membranes into the blood and are systemically transported to body tissues, including the brain. Exposure to high concentrations of vapours (>1.2 mg/m3) for even brief periods can cause pneumonitis, chest pains, dyspnea, coughing; later stomatitis, gingivitis, and salivation occurs. Mercury can be absorbed slowly through the skin. Chronic symptoms involved the CNS with tremors and various neuropsychiatric disturbances. The TLV would be exceeded if the contents of a small Hg clinical thermometer were dispersed in a closed 100' x 15' room. GI uptake of HG is low (5%).

CHRONIC HEALTH HAZARDS:

No data available.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

CARCINOGENICITY

OSHA: None
ACGIH: None
OTHER: None

SECTION 3 NOTES

This item is a glass light lamp. The mercury is inside the lamp, chemical characteristic of the lamp are not applicable.
This lamp can crack if dropped or hit by a heavy object.

SECTION 4: FIRST AID MEASURES

EYES:	Welders flash treatment.
SKIN:	Conjunctivitis.
INGESTION:	No first aid should be needed due to ultraviolet exposure.
INHALATION:	No first aid should be needed due to ultraviolet exposure.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 4 NOTES

Normal first aid procedure for glass cuts if such occur through lamp breakage. 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: FIREFIGHTING MEASURES

FIRE AND EXPLOSION DATA NOT APPLICABLE. UNDER EXTREME HEAT, GLASS ENVELOPE MIGHT MELT OR CRACK.

SECTION 5 NOTES

Glass is not combustible, melting point is over 900°F (482°C).

SECTION 6: ACCIDENTIAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

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

SECTION 6 NOTES

SECTION 7: HANDLING & STORAGE

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

STORAGE: Used lamps may be stored one year.

SECTION 7 NOTES

Normal precautions should be taken for collection of broken glass.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS:

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

SECTION 8 NOTES

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Not applicable. This item is a light lamp, glass tube eight inches long with ceramic end caps.

SECTION 9 NOTES

Please note that lamp surfaces may become hot during and for a brief period after operation.

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Lamps are stable.
CONDITIONS TO AVOID (STABILITY):	Photosensitizing agents.
INCOMPATIBILITY (MATERIAL TO AVOID):	Glass will react with Hydrofluoric Acid.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Will not occur.
HAZARDOUS POLYMERIZATION:	Will not occur.
CONDITIONS TO AVOID (POLYMERIZATION):	Will not occur.

SECTION 10 NOTES

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: No data available.

SECTION 11 NOTES

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No data available.

SECTION 12 NOTES

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

A used mercury-containing lamp becomes a waste on the date the generator/handler permanently removes it from its fixture. An unused mercury-containing lamp becomes a waste on the date the handler decides to discard it. Once a lamp becomes waste it is subjected to the current Toxic Characteristic Leaching Procedure (TCLP) prescribed by the Environmental Protection Agency. This test is used to determining whether an item is a hazardous waste or a non-hazardous waste under current EPA definition. These lamps would fail the TCLP test and would be considered hazardous under the Universal Waste Rules. Handler should evaluate all of the disposal options, which may be available in the particular state in which the handler’s facility is located. The handler should check with federal, state and local officials for their guidance. DDC Dolphin encourages recycling of its products by qualified recyclers.

RCRA HAZARD CLASS:

Lamps that are not recycled must be handled/disposed in accordance with RCRA regulations. Each state has specific regulations that apply to the management of spent lamps. Lamp recycling must be in accordance with the Universal Waste rule.

SECTION 13 NOTES

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not regulated.

SECTION 14 NOTES

These mercury containing lamps shipped in the original packaging are not regulated by air, truck, rail, or ocean shipment.

SECTION 15: REGULATORY INFORMATION

U.S. ENVIRONMENTAL PROTECTION AGENCY:

RCRA / Universal Waste - 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."

U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

Ultraviolet exposure is limited to 1 milliwatt per centimetre squared. Ozone exposure is regulated at 0.1 parts per million

SECTION 15 NOTES

National and International regulations have been consulted and considered in the preparation of this document 3-7.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: Photosensitizing

DISCLAIMER:

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. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

REFERENCES:

1.U.S. Department of Labor- Occupational Safety & Health Administration: PARTICULATE MERCURY INWORKPLACE ATMOSPHERES http://www.osha.gov/dts/sltc/methods/inorganic/id145/id145.html
2.U.S. Department of Labor- Occupational Safety & Health Administration: Occupational Safety and Health Guidelines for Mercury Vapor http://www.osha.gov/SLTC/healthguidelines/mercuryvapor/recognition.html
3.Regulation (EC) No 1907/2006 (REACH)
4.Regulation (EC) No 1272/2008 (CLP)
5.Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200
6.The OSHA Hazard Communication Standard (HCS) (Subpart Z, Toxic and Hazardous Substances, 29 CFR1910.1200)
7.Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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