

Safety Data Sheet	Revised: 25 May 2007 Rev. Nr.: 1
Medium pressure mercury vapour lamp UV lamps for curing, printing inks, photo polymerisation, and disinfection.	Types: AM

1. Identification of the substance/preparation and company

Empirical formula: ---

Molecular weight: --- [g/mol]

1.2 Application

The emitter is used to radiate ultraviolet waves.

1.3 Information about manufacturer/supplier

atg UV Technology

Enterprise House

Richmond Hill

Pemberton

Wigan

WN5 8AA

Phone: +44 (0)1942 216 161

email address: info@atguv.com

fax: +44 (0)1942 213 131

2. Composition/information on ingredients

Chemical characterization (substance)

Emitter consistent of quartz glass filled with small amounts of mercury (< 2.5 %).

CAS-No./ EINECS-No.	Compound	Content [%]	Risk of the component	
			Symbol	R-Phrase
7439-97-6/ 231-106-7	Mercury	< 2.5	T, N	23-33-50/53

wording R-phrases:

23	Toxic by inhalation.
33	Danger of cumulative effects.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Hazard identification

Because the mercury content is less 2.5 % the risk phrase for the emitter is 52/53 (wording see Chap. 15) in accordance to directive 1999/45/EC.

Characterization of hazards

Dangerous for the environment.

Hazard information

The emitter is not dangerous under regular conditions.

Exposure to skin or eyes causes burns, UV Radiation in the UV-A / UV-C-range
 Mechanical destruction may cause danger by splinter of glass and liberation of mercury.

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Mercury is harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

4. First-aid measures

General information

Burns caused by exposure or severe injuries caused by splinter of glass should be treated by a physician.

Medical advice: Burns of ultraviolet radiation.

5. Fire-fighting measures

Suitable extinguishing media

Not suitable extinguishing media

Specific danger by the substance, its burning products or developing gases

See section 8 and 11

Further information

Emitter is not combustible.

6. Accidental release measures

Personal precautions:

If the emitter is mechanically destroyed amounts of mercury can be liberated. In this case provide sufficient air exchange and/or ventilation in working rooms.

Avoid any contact with mercury.

Balls of mercury should be collected with a special mercury tongs and put in a closable containment of plastic material. Ideally with a specialist mercury clean up kit.

Very small balls which can not take up with the tongs grit with zinc powder or a special mercury absorber to bind the mercury. And put it in a closable containment as described before.

Mercury and the materials with the fixed mercury, forward to disposal in accordance with locally approved waste-disposal-regulations.

(For the danger caused by vapours of mercury see chap. 11)

Environmental precautions:

Mercury does not allow to enter surface and ground water, the sewage system or soil.

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Methods for cleaning up/taking up:

Clean up the decontaminated surfaces with wet cleaning rags. The rags forward to disposal as described before.

Further information: ---

7. Handling and storage

7.1 Handling

Advice on safe handling

Avoid mechanical stress (danger of broken glass)

Precautionary measures against fire and explosion

7.2 Storage

Requirements for storage rooms and vessels

Further information for storage

Storage class

8. Exposure controls / Personal protection

8.1 Additional advice on system design

8.2 Advice on limits

United Kingdom: TWA: 0.025 mg/m³ (Mercury)

France: VME: 0.05 mg/m³ (Mercury)

USA: REL: 0.05 mg/m³ (Mercury)

Germany: MAK: 0.1 mg/m³ (Mercury)

8.3 Personal protective equipment

Respiratory protection: If mercury is liberated and ventilation of the working

place is not sufficient use filter with combination Hg-P3.

Hand protection: If glass is broken use cut resistance gloves.

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Eye protection: If glass is broken use eye protection.

Body protection: ---

Protective and hygiene measures: Skin contaminated with mercury wash immediately with soap and plenty of water.
Contaminated clothes change immediately.

9. Physical and chemical properties

9.1 Appearance

Form: Liquid
Colour: Silver
Odour: Odourless

9.2 Aspects relevant for security

Test method

PH-value: not applicable
Melting point: Quartz glass 2000 °C, Mercury liquid at room temperature
Boiling point: not applicable
Flash point: not applicable
Ignition point: not applicable
Self ignition: not applicable

Explosion limits lower: not applicable
upper: not applicable

Vapour pressure: not applicable

Density: not determined

Solubility in water: insoluble

9.3 Further information

10. Stability and reactivity

Conditions to avoid

Mechanical stress may cause broken glass (danger of broken glass and liberated mercury).

Materials to avoid

Dangerous compounds of decomposition

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Further information

11. Toxicological information

Acute toxicity

Chronic toxicity

Inhalation of mercury vapour (> 0.1 mg/m³) for a longer period of time can damage the central nerve system. Symptoms are: trembling of muscles, degeneration of muscles, emotional instability, lack of concentration, impaired vision.

(Important! Liberated mercury remove completely as described in chap. 6)

Practical experience

Further information

12. Ecological information

Information on elimination (persistence and decomposition)

Effects on environmental compartments

Ecotoxic effects

Mercury is harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Further information

13. Advice on disposal

Disposal

Dispose the product according to local legal or WEEE regulations.

Waste is classified for member states of the EU as:

Code: 200121 fluorescent tubes and other mercury-containing waste
(Waste classified as hazardous)

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Classification of the materials which are generated in the case of a broken emitter (see chapt. 6). with the agreement of the disposer this waste must also be classified as hazardous.

Packages which are not contaminated with mercury should be recycled.

14. Transport information

Contact the manufacturer/ supplier for the mercury content of the emitter.

14.1 Land transport (ADR/RID/GGVS/GGVE)

Not dangerous goods in the sense of ADR if mass of Hg is lesser 1 Kg per emitter (chap. 3.3.1; special provision: 599).

14.2 Inland water ways transport

Not classified.

14.3 Marine transport (IMDG/GGVSee)

Not dangerous goods in the sense of IMDG if mass of Hg is lesser 1 Kg per emitter (chap. 3.3.1; special provision: 941).

14.4 Air transport (IATA/ICAO)

Not dangerous good in the sense of IATA if mass of Hg is less than 100 mg per emitter and additionally the quantity of mercury per package is 1 g or less (chap. 4.4; special provision: A69).

Otherwise following classification is correct:

UN-No.: UN 2809
Proper Shipping Name: MERCURY CONTAINED IN MANUFACTURED ARTICLES)
Main risk: 8
Subsidiary risk: ---
Packing group: III
Label: 8

14.5 Further information

15. Regulatory information

15.1 Labelling

Materials classified with R-phrase 52/53 get no symbol of danger in accordance to directive 67/548/EEC.

R-Phrases:

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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S-Phrases:

61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

15.2 National regulations

Germany:

Mercury

Water Endangerment:

WGK-class: 3 strongly water pollutant
(regulation "VwVwS", Annex 1)

16. Other information

The data given here is based on today's stand of our knowledge and experience. The purpose of this Safety Data Sheet is to describe the product in terms of their safety requirements. The data does not signify any warranty with regard to the products properties.