Safety Data Sheet
In accordance wth the EG-Regulations 91/155/EWG

1. Substance/preparation and company details

1.1 Description

This security data sheet is only valid for the following emitters:

1.2 Application

The emitters are used to generate ultraviolet waves.

1.3 Manufacturer/supplier information

Aladin GmbH
Am Eckfeld 10
83543 Rott am Inn

08039 / 90867-0

1.4 Emergency number

Centre for poison related emergencies: Medical Clinic Munich Rechts der Isar; Ismaninger Str. 22; 81675 Munich **Telephone: 089 / 19240**

2. Possible hazards

2.1 Categorizing of substances or composition

According to the preparation guidelines 1999/45/EG the mercury content of the emitter places it under the hazard note R 23-33- 52/53.

2.2 R-Phrase key

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.

2.3 Other hazards

The emitter will cause no harm if correctly used.
Excessive radiation on skin and/or eyes may result in burns.
When the emitter is mechanically destroyed there may be a potential hazard risk through glass splinters and released mercury.

3. Composition/information of ingredients

3.1 Chemical characterization (substance)

Quartz glass emitter filled with mercury.

3.2 Composition

Description	CAS-Nr.	EINECS-Nr.	Content (M%)	R-Phrase
Mercury	7439-97-6	231-106-7	< 2,5	23-33-50/53

4 First aid measures

4.1 General information

Burns caused by excessive radiation on skin or eyes and severe injuries caused by splinters/glass shards should be treated by a doctor.

4.2 Information for the doctor

Burns from ultraviolet radiation.

5. Fire-fighting measures

5.1 Extinguishing agent

Emitters are not combustible. Extinguishing agents and fire-fighting measures are to be coordinated in accordance with the surrounding fire.

5.2 Special protective equipment for fire-fighting

No special measures are required.

6. Accidental release measures

6.1 Personal precautions

Hints for safe handling: See section 7.1.

6.2 Environmental precautions

Prevent any spillage from entering the sewage system, the surface water and the ground water.

6.3 Methods and material for containment and cleaning up

If the glass casing of the emitter is broken, mercury can leak out. In this case provide sufficient air exchange and/or ventilation in work areas.
Avoid any contact with mercury.
Gather up the balls of mercury with special mercury tongs and put them into a lockable container made from plastic.
Very small balls that can't be picked up with the tongs can be contained by sprinkling zinc powder or a special mercury absorber over them to bind the mercury.

Clean decontaminated area thoroughly with a damp cloth and put the cleaning materials carefully into a plastic lockable container. Finally, ensure that the waste gets properly disposed of.

7. Handling and storage

7.1 Precautions for safe handling

Avoid mechanical pressure or tension (risk of breakage).

7.2 Conditions for safe storage

Always keep original packaging.

8. Monitoring and limiting exposure/personal protection

8.1 Parameters to be observed in Germany

MAK-List 0,1mg/m³ (Mercury, TRGS 900)

8.2 Monitoring and limiting exposure

Respiratory protection:
In areas where sufficient ventilation is not possible and mercury spillage can occur, composite filters with the filter effect of Hg-P3 are required.

Hand protection:
If glass is broken, cut resistant gloves must be used.

Eye protection:
If glass is broken, safety glasses must be used.

Protective and hygiene measures:
Any skin that comes into contact with mercury must be immediately washed with soap and lots of water. Contaminated clothes must be changed immediately.

9. Physical and chemical properties

9.1 General characteristics

Form : solid
Colour: silver
Smell: odourless

9.2 Important information regarding health and environmental protection and safety.

Melting point:	appr. 2000°C (Quartz glass)
Flammability:	no
Self-inflammability:	no
Solubility in the water:	insoluble

10. Stability and reactivity

10.1 Stability

Mechanical stress may cause the glass to break (danger of broken glass and mercury spillage).

10.2 Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

11.1 Toxicological evaluation

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

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12. Environmental information

12.1 Ecotoxical effects

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

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13. Information concerning disposal

13.1 Waste treatment processes

Dispose the product according to legal regulations.
Waste is classified for member states of the EU as:
Code: 200121 fluorescent tubes and other mercury-containing waste

Mercury contaminated glass must be disposed of in agreement with the waste disposer.

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14. Transport information

14.1 UN-Number

UN-Nr.: 3506

14.2 UN proper shipping name

Mercury contained in manufactured articles/equipment.

14.3 Transport hazard class

Class: 8 / Corrosive

14.4 Packing group

Packing group: III

14.5 Environmental dangers and specific safety measures for the user.

According to IATA emitters containing a maximum of 1g mercury/emitter and packaged with maximum 30g mercury/parcel are not classified as dangerous goods. Special provision A69(b).

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15. Legal information

15.1 National provisions (Germany)

For R-phase guidelines 67/548/EWG refer to section 2.2.

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16. General information

16.1 General information

The information given in this safety data sheet describes the safety requirements of our products. They refer to manufacturing the delivery state of the products. This information is based on our present knowledge. The data does not signify any warranty with regard to the products properties and establishes no contract legal rights.

Data sheet prepared by: