

MATERIAL SAFETY DATA SHEET

According EC 91/155

1. Identification of the substance/preparation

Supplier : Bower Products Limited
General description : Blacklight Circline Fluorescent Lamp
Publicationdate : Jan 20, 2010

2. Composition/information on ingredients

Component	CAS-no	EC-no	Catalogue-no	Percentage(%)	EC-label
GLASS					
STRONTIUM BORATE, EUROPIUM-DOPED	102110-29-2310-028-8				
* FILLING GAS (KR/AR)					R: 99
MERCURY	7439-97-6	231-106-7	080-001-00-0		T,N;R: 61 23 33 50/53 Repr.Cat. 2
* TUNGSTEN	7440-33-7	231-143-9			
* METALS					
* CAPPING CEMENT					

3. Hazard identification

4. First-aid measures

Skin : Not applicable.
Ingestion : Not applicable.
Inhalation : Not applicable.
Eyes : Not applicable.
Remarks first aid : none

5. Fire fighting measures

Fire-extinguisher : determined by surrounding
*** Hazardous decomposition products in fire** : silicon dioxide, aluminium oxides, mercury oxides, strontium oxide, boric oxides, europium oxides, metal oxide, tungsten oxides

6. Accidental release measures

Spillage procedure : Not applicable if lamp is in original state. If lamp is broken: clear up using special mercury vacuum cleaner or other appropriate agent for preventing vaporisation. Take standard measures for clearing up broken glass and deposit in a lockable container.
Emergency procedure : not applicable

7. Handling and storage

Local exhausting : Under normal circumstances not applicable.
Storage conditions : No special precautions.
Storage code (on behalf of PGS 15) : C9

8. Exposure controls/personal protection

Exposure limits :

applicable to: Netherlands (20 °C; 1013 mbar)

No MAC(STEL) has been laid down.
No MAC(STEL) has been laid down.
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TLV: 0.05 mg/m³
STEL: 0.5 mg/m³
No MAC(STEL) has been laid down.
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GLASS
STRONTIUM BORATE, EUROPIUM-DOPED
FILLING GAS (KR/AR)
MERCURY(Women in the fertile age: consult the industrial safety officer.)
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TUNGSTEN
METALS
CAPPING CEMENT

applicable to: Belgium (20 °C; 1013 mbar)

TLV: 0.025 mg/m³ S
TLV: 5 mg/m³

MERCURY(Women in the fertile age: consult the industrial safety officer.)
TUNGSTEN

STEL: 10 mg/m3

TUNGSTEN

applicable to: Germany (20 °C; 1013 mbar)

TLV: 0.1 mg/m3

S

MERCURY (Women in the fertile age: consult the industrial safety officer.)

TLV: 5 mg/m3

TUNGSTEN (as inhalable dust)

applicable to: United States of America (25 °C; 1013 mbar)

No MAC(STEL) has been laid down.

FILLING GAS (KR/AR)

TLV: 0.025 mg/m3

S

MERCURY (Women in the fertile age: consult the industrial safety officer.)

TLV: 5 mg/m3

TUNGSTEN

STEL: 10 mg/m3

TUNGSTEN

C=Ceiling; S=Skin

Remarks exposure limits :

none

Odour threshold (20°C; 1013 mbar) :

not traceable

Advised personal protection :

skin : not applicable

eyes : not applicabel

inhalation : not applicable

9. Physical and chemical properties

Physical state	: article
Colour	: type dependent
Odour	: odourless
Vapor rate/range	: not applicable
Boiling point/range	: not traceable
Melting point/range	: >480 °C
Flash point/range	: not applicable
Explosive limits	: not applicable
Dust explosions possible in air	: not applicable
Density	: not traceable
Vapour pressure	: not applicable
Solubility in water	: not applicable
Solubility in fat	: not applicable
pH	: not applicable
Viscosity	: not applicable
Autoignition temperature	: not applicable
Decomposition temperature	: not traceable
Electrostatic chargement	: not traceable

10. Stability and reactivity

Conditions to avoid	: none
Reactions with water	: no
Hazardous reactions with	: none
Hazardous decomposition products at heating	: none

11. Toxicological information

Symptoms

Skin	local	: Not applicable.
	general	: Not applicable.
Ingestion	local	: Not applicable.
	general	: Not applicable.
Inhalation	local	: Not applicable.
	general	: Not applicable.
Eyes	local	: Not applicable.
Remarks symptoms		: None

Toxicity :

not traceable

Ames test : not traceable

12. Ecotoxicological information

Biological oxygen demand (5)	: not traceable	
Chemical oxygen demand	: not traceable	
Biological/chemical oxygen demand ratio	: not traceable	
Degradability	: not traceable	
Biochemical factor	: >2500 MERCURY	Source : Supplier
Log Po/w	: 4.5 MERCURY	Source : Chemicalcards
Henry Constant	: not traceable	

Ecotoxicity :

LC-50: 0.004 mg/l/96H (Fish), MERCURY
EC-50: 0.0052 mg/l/48H (Daphnia), MERCURY
IC-50: 0.3 mg/l/72H (Algae), MERCURY

Source : Easi View
Source : ChemDat (Merck)
Source : Easi View

Remarks on ecotoxicity : none

13. Disposal considerations

Remainder material or uncleaned empty packagings have to be incinerated in a proper installation or dumped on an approved landfill, in accordance with local and national legislation.

14. Transport information

ADR/RID	UN-number	: 2809 MERCURY IN MANUFACTURING ARTICLES
	Class	: 8
	Packinggroup	: III
	Transport emergency card	: 80GC9-III
IMO	UN-number	: 2809 MERCURY IN MANUFACTURING ARTICLES
	Class	: 8
	Packinggroup	: III
	Marine pollutant	: no
IATA/ICAO	UN-number	: 2809 MERCURY IN MANUFACTURING ARTICLES
	Class	: 8
	Packinggroup	: III

15. Regulatory information

EC-Label : not applicable
Remarks on EC-labeling : none

16. Other information

* Remarks on MSDS : Working of this product may release toxic dust.
Toxic mercury vapours can be released if the lamp is broken.
These lamps emit Ultraviolet Radiation (UV-A). Avoid prolonged exposure.
For transport exemption consult applicable regulations.
The product contains <= 13 mg mercury.

Inner company references : none

Overview relevant R-sentences from all components in section 2 :

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.
61	May cause harm to the unborn child.
99	Suffocating in high concentrations.