SAFETY DATA SHEET

According to EC 1907/2006 (REACH)

Date last verification : 2017-05-29
Revision date : 2017-05-29
Publication date : 2005-11-14 **Version number :** 5.0

Last modifications in sections : 2 - 3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

SDS : 22938
Supplier : PHILIPS LIGHTING, EINDHOVEN

High Tech Campus 44
5656 AE Eindhoven
The Netherlands

Tradename : TL FLUORESCENT LAMPS

1.2. Relevant identified uses of the substance or mixture and uses advised against

General description : LAMP
Use : Various
Uses advised against : Data not available.

1.3. Details of the supplier of the safety data sheet

Supplier safety data sheet : Philips Electronics Nederland B.V., Philips Environment & Safety, High Tech Campus 37, 5656 AE Eindhoven, Tel. +31 (0)40 2747588
Responsible department : dangerous.goods@philips.com

1.4. Emergency telephone number

Emergency telephone number : +31 (0)497-598315

* SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

(EC) No 1272/2008

2.2. Label elements

(EC) No 1272/2008

Label : not applicable
Remarks on labelling none

2.3. Other hazards

If applicable: see section 6.1 and section 7.1.

* SECTION 3: Composition/information on ingredients

Component	CAS-no. / EC-no.	Index No. / Registration no.	Percentage(%)	Label
GLASS	65997-17-3			

	266-046-0	01-2119488048-29 01-2119990048-30	
FLUORESCENT POWDER			
FILLING GAS (KR/AR)			GHS04 H280 Press. gas - compressed EUHP99 Asphixiant
MERCURY	7439-97-6	080-001-00-0	GHS06 GHS08 GHS09 H330 Acute tox. 2 H360D Repr. 1B H372 STOT RE 1 H400 Aquatic acute 1 H410 Aquatic chronic 1
	231-106-7	01-2119548380-42	
TUNGSTEN	7440-33-7		
	231-143-9	01-2119488910-30	
METALS			
CAPPING CEMENT			

For the full text of the H-sentences mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin : Not applicable.
Ingestion : Not applicable.
Inhalation : Not applicable.
Eyes : Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

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

4.3. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable fire-extinguisher

determined by surrounding

Unsuitable fire-extinguisher

not traceable

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in fire : silicon dioxide, mercury oxides, tungsten oxides, metal oxide

5.3. Advice for firefighters

In the event of fire, wear protective clothing and use breathing apparatus that is independent of the ambient air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Precautions

Use protective equipment. See section 8.

Emergency procedure

Is not to be expected.

6.2. Environmental precautions

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.

6.3. Methods and material for containment and cleaning up

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.

6.4. Reference to other sections

See section 8 for appropriate personal protection.
See section 13 for additional information on waste treatment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Observe label precautions.

Local exhausting : Under normal circumstances not applicable.

Storage code (on behalf of PGS 15) : CT3

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : See also any precautionary statements in section 2.2.
No special precautions.

7.3. Specific end use(s)

Data not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits :

applicable to: The Netherlands (20 ºC; 1013 mbar)

No TWA has been laid down.		GLASS	
No TWA has been laid down.		FLUORESCENT POWDER	
No TWA has been laid down.		FILLING GAS (KR/AR)	
TWA(8 hours):	0.02 mg/m3	MERCURY	(Statutory threshold limit value)
No TWA has been laid down.		TUNGSTEN	
No TWA has been laid down.		METALS	
No TWA has been laid down.		CAPPING CEMENT	

applicable to: Belgium (20 ºC; 1013 mbar)

TWA(8 hours):	0.02 mg/m3		MERCURY
TWA(8 hours):	5 mg/m3		TUNGSTEN
TWA(15 minutes):	10 mg/m3		TUNGSTEN

applicable to: Germany (20 ºC; 1013 mbar)

TWA(8 hours):	0.02 mg/m3	S	MERCURY
TWA(15 minutes):	0.16 mg/m3	S	MERCURY
TWA(8 hours):	5 mg/m3		TUNGSTEN(as inhalable dust)

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

TWA(8 hours):	0.025 mg/m3	S	MERCURY- [according to ACGIH]
TWA(8 hours):	0.1 mg/m3	C	MERCURY- [according to OSHA]
TWA(8 hours):	5 mg/m3		TUNGSTEN- [according to ACGIH]
TWA(15 minutes):	10 mg/m3		TUNGSTEN- [according to ACGIH]

applicable to: Sweden (20 ºC; 1013 mbar)

TWA(8 hours):	0.02 mg/m3	MERCURY(as inhalable dust)
TWA(8 hours):	5 mg/m3	TUNGSTEN(as dust)

applicable to: Switzerland (20 ºC; 1013 mbar)

TWA(8 hours):	0.05 mg/m3	MERCURY(fume)
TWA(15 minutes):	0.4 mg/m3	MERCURY(fume)

applicable to: China (20 ºC; 1013 mbar)

TWA(8 hours):	0.02 mg/m3	S	MERCURY
TWA(15 minutes):	0.04 mg/m3	S	MERCURY
TWA(8 hours):	5 mg/m3		TUNGSTEN
TWA(15 minutes):	10 mg/m3		TUNGSTEN

applicable to: European Union (20 ºC; 1013 mbar)

TWA(8 hours):	0.02 mg/m3	MERCURY

C=Ceiling; S=Skin

Remarks exposure limits :

none

DNEL (Derived No Effect Level)

Worker - Inhalation - Long term exposure - Systemic effects: 0.02 mg/m3	MERCURY **Source :** Chemicalcards
Worker - Inhalation - Long term exposure - Systemic effects: 5.8 mg/m3	TUNGSTEN **Source :** ECHA
Worker - Dermal - Long term exposure - Systemic effects: 1.7 mg/kg bw/day	TUNGSTEN **Source :** ECHA
Consumer - Inhalation - Long term exposure - Systemic effects: 1.7 mg/m3	TUNGSTEN **Source :** ECHA
Consumer - Dermal - Long term exposure - Systemic effects: 0.480 mg/kg bw/day	TUNGSTEN **Source :** ECHA
Consumer - Oral - Long term exposure - Systemic effects: 0.480 mg/kg bw/day	TUNGSTEN **Source :** ECHA

PNEC (Predicted No Effect Concentration)

Fresh water: 0.000057 mg/l	MERCURY	**Source :** Chemicalcards
Marine water: 0.000067 mg/l	MERCURY	**Source :** Chemicalcards
Fresh water: 0.338 mg/l	TUNGSTEN	**Source :** ECHA
Marine water: 0.0338 mg/l	TUNGSTEN	**Source :** ECHA
Intermittent releases: 0.310 mg/l	TUNGSTEN	**Source :** ECHA
Sewage Treatment Plant (STP): 5.86 mg/l	TUNGSTEN	**Source :** ECHA
Fresh water sediment: 960 mg/kg	TUNGSTEN	**Source :** ECHA
Marine water sediment: 96 mg/kg	TUNGSTEN	**Source :** ECHA
Soil: 2.17 mg/kg	TUNGSTEN	**Source :** ECHA
Oral (food): 11 mg/kg	TUNGSTEN	**Source :** ECHA

8.2. Exposure controls

Advised personal protection :

Hands	:	not applicable
Breakthrough time	:	not applicable
Eyes	:	not applicable
Inhalation	:	not applicable
Skin	:	none (when used normally)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state		: article			
Colour		: type dependent			
Odour		: odourless			
Odour threshold (20ºC; 1013 mbar)		: not traceable			
pH		: not applicable			
Melting point/range		: not traceable			
Boiling point/range		: not traceable			
Flash point/range		: not applicable			
Vapor rate/range		: not applicable			
Flammability (solid, gas)		: data not available			
Explosive limits		: not applicable			
Vapour pressure		: not applicable			
Density		: not traceable			
Solubility in water		: not applicable			
Log Po/w	: 4.5	MERCURY	**Source**	:	Chemicalcards
Autoignition temperature		: not applicable			
Decomposition temperature		: not traceable			
Viscosity		: not applicable			
Dust explosions possible in air		: not applicable			
Oxidising properties		: no			

9.2. Other information

Solubility in fat	: not applicable
Electrostatic chargement	: not traceable

SECTION 10: Stability and reactivity

10.1. Reactivity

See section 10.2 - 10.6.

10.2. Chemical stability

The substance or mixture is stable under normal conditions. See also section 10.4.

10.3. Possibility of hazardous reactions

Reactions with water	: no
Other hazardous conditions	: Data not available.

10.4. Conditions to avoid

Data not available.

10.5. Incompatible materials

Hazardous reactions with	: none

10.6. Hazardous decomposition products

Hazardous decomposition products at heating	: none

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

LD-50: >2.0 g/kg (ORL-RAT)	TUNGSTEN	**Method:** OECD 401 **Source :** Supplier

Acute dermal toxicity

LD-50: >2.0 g/kg (SKN-RAT)	TUNGSTEN	**Method:** OECD 402 **Source :** Supplier

Acute inhalation toxicity

LC-50: >5.4 mg/l/4H (IHL-RAT)	TUNGSTEN	**Method:** OECD 403

Source : Supplier

Ames test
not traceable

Skin corrosion/irritation
The substance or mixture is not classified for skin corrosion/-irritation.

Serious eye damage/irritation
The substance or mixture is not classified for serious eye damage/irritation.

Respiratory or skin sensitisation
The substance or mixture is not classified for respiratory or skin sensitisation.

Germ cell mutagenicity
The substance or mixture is not classified for germ cell mutagenicity.

Carcinogenicity
The substance or mixture is not classified for carcinogenicity.

Additional information regarding carcinogenicity (NTP, IARC, OSHA)

NTP: no	IARC: no	OSHA: no	GLASS
NTP: no	IARC: 3	OSHA: no	MERCURY
NTP: no	IARC: no	OSHA: no	TUNGSTEN

Reproductive toxicity
The substance or mixture is not classified for reproductive toxicity.

Specific target organ toxicity-single exposure
The substance or mixture is not classified for specific target organ toxicity-single exposure.

Specific target organ toxicity-repeated exposure
The substance or mixture is not classified for specific target organ toxicity-repeated exposure.

Aspiration hazard
The substance or mixture is not classified for aspiration hazard.

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

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

LC-50: 0.004 mg/l/96H (Fish)	MERCURY	**Source :** Easi View
EC-50: 0.0052 mg/l/48H (Daphnia)	MERCURY	**Source:** Merck
IC-50: 0.3 mg/l/72H (Algae)	MERCURY	**Source :** Easi View

12.2. Persistence and degradability

Biological oxygen demand	:	not traceable
Chemical oxygen demand	:	not traceable
Biological/chemical oxygen demand ratio	:	not traceable
Degradability	:	not traceable

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)	: >2500	MERCURY	**Source** : Supplier
Log Po/w	: 4.5	MERCURY	**Source:** Chemicalcards

12.4. Mobility in soil

Henry Constant : not traceable

12.5. Results of PBT and vPvB assessment

Data not available.

12.6. Other adverse effects

Remarks on ecotoxicity : none

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.

SECTION 14: Transport information

14.1. UN number

ADR/RID : 3506
IMDG/IMO : 3506
IATA/ICAO : 3506

Remarks IATA/ICAO : For transport exemptions consult IATA special provisions A48, A69 and A191.

14.2. UN proper shipping name

ADR/RID : MERCURY CONTAINED IN MANUFACTURED ARTICLES
IMDG/IMO : MERCURY CONTAINED IN MANUFACTURED ARTICLES
IATA/ICAO : MERCURY CONTAINED IN MANUFACTURED ARTICLES

14.3. Transport hazard class(es)

ADR/RID : 8 (6.1) IMDG/IMO : 8 (6.1) IATA/ICAO : 8 (6.1)

14.4. Packing group

ADR/RID : none IMDG/IMO : none IATA/ICAO : none

14.5. Environmental hazards

Marine pollutant : no

14.6. Special precautions for user

Hazard identification number (ADR/RID) : none
EmS (IMDG/IMO) : F-A, S-B

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Data not available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Articles are exempted from the Toxic Substances Control Act Inventory (TSCA-USA).

15.2. Chemical safety assessment

- Data not available.

SECTION 16: Other information

Remarks on SDS : Working on this product may release toxic dust.
Toxic mercury vapours can be released if the lamp is broken.
For transport exemptions consult applicable regulations.

Overview relevant H-sentences from all components in section 3

H280	Contains gas under pressure; may explode if heated.
H330	Fatal if inhaled.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
EUHP99	Suffocating in high concentrations.

Training advice

Provide adequate information, instruction and training for operators.

A key or legend to abbreviations and acronyms used in the safety data sheet

REACH	Registration, Evaluation and Authorisation of CHemicals
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
CAS	Chemical Abstracts Service
TGG = TWA	Time Weighted Average
LEL	Lower Explosive Limit
UEL	Upper Explosive Limit
NTP	National Toxicology Program
KHC	Known Human Carcinogen
RAHC	Reasonably Anticipated Human Carcinogen
IARC	International Agency for Research on Cancer
OSHA	Occupational Safety & Health Administration
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
RID	Règlement concernant le transport international ferroviaire des marchandises dangereuses
UN	United Nations
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
EmS	Emergency Schedule

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* Point to alterations with regard to the previous version.