

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

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Indication of changes : §2.1 - §2.2 - §2.3 - §4.1 - §4.2 - §5.1 - §5.3 - §6.1 - §6.2 - §6.3 - §7.1 - §8.2 - §9.1 - §10.4 - §10.6 - §11.1 - §13.1 - §16

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

#### 1.1. Product identifier

Safety Data Sheet : 28256  
Product code : 9280 197 01003  
Product name: **AST36WTL – EU** Astron UV-A lamp 36W TL-D  
**AST36WTL – EU** Shatterproof Astron UV-A lamp 36W TL-D

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

Relevant identified uses : No information available.  
Uses advised against : No information available.

#### 1.3. Details of the supplier of the safety data sheet

Made for : ASTRONUV Europe / Alcochem Hygiene  
van Dijklaan 17m  
5581 WG Waalre, The Netherlands  
Tel: +31 (0)33 299 4139

Responsible for the compilation of the SDS on behalf of the supplier/manufacturer : info@astron-uv.com

#### 1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)33 299 4139

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### 2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

This article doesn't contain hazardous substances or mixtures intended to be released under normal or reasonably foreseeable conditions of use.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

none

Remarks on labelling : As an article, this product presents negligible health and physical hazards under reasonably anticipated conditions of use. Accordingly, a Safety Data Sheet (SDS) is not required for this product under the standards cited above. This document is prepared as a courtesy to provide persons using this product with additional safety and regulatory information.

#### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.  
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.  
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixture

CAS No.	EC No.	REACH No.	Concentration (%)	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL / M-factor / ATE
GLASS					
65997-17-3	266-046-0	01-2119488048-29 01-2119990048-30			
MERCURY					
7439-97-6	231-106-7	01-2119548380-42		GHS06 GHS08 GHS09 H330 Acute Tox. 2 H360D Repr. 1B H372 STOT RE 1 H400 Aquatic Acute 1 H410 Aquatic Chronic 1	
TUNGSTEN					
7440-33-7	231-143-9	01-2119488910-30		GHS02 H228 Flam. Sol. 1 H252 Self-heat. 2	
METALS					
FILLING GAS					
				GHS04 H280 Press. gas - compressed	
FLUORESCENT POWDER					
CAPPING CEMENT					

Full text of H- and EUH-statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General information** : No special measures are necessary. When in doubt or if symptoms are observed, get medical advice.
- Following inhalation** : No special measures are necessary.
- Following skin contact** : No special measures are necessary.
- After eye contact** : No special measures are necessary.
- Following ingestion** : No special measures are necessary.
- Self-protection of the first aider** : No special measures are necessary.

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

**Adverse human health effects and symptoms / Organs affected:**

not applicable

- Following inhalation** : not applicable
- Following skin contact** : not applicable
- After eye contact** : not applicable
- Following ingestion** : not applicable

Further information: SECTION 11: Toxicological information

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

- Notes for the doctor** : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media** : Co-ordinate fire-fighting measures to the fire surroundings.
- Unsuitable extinguishing media** : No information available.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products**

In case of fire may be liberated : Silicon dioxide (SiO<sub>2</sub>) - mercury oxides - metal oxide - tungsten oxides

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Flame-retardant protective clothing. (EN 469)

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** : Use personal protection equipment. In case of fire: Evacuate area. Health hazard! Toxic mercury vapors can be released if the lamp is broken.

#### 6.1.1. For non-emergency personnel

**Protective equipment** : Do not breathe dust/fume/gas/mist/vapours/spray. Wear a self-contained breathing apparatus and chemical protective clothing.

**Emergency procedures** : Health hazard! Evacuate area. Toxic mercury vapors can be released if the lamp is broken.

#### 6.1.2. For emergency responders

**Personal protection equipment** : Do not breathe dust/fume/gas/mist/vapours/spray. Wear a self-contained breathing apparatus and chemical protective clothing.

### 6.2. Environmental precautions

Collect spillage. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained.

### 6.3. Methods and material for containment and cleaning up

#### 6.3.1. For containment

Spillage procedure not applicable, if lamp is in original state. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves.

#### 6.3.2. For cleaning up

Be thorough in collecting broken glass. Put the broken lamp parts in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner unless it is a special mercury vacuum cleaner to prevent any vaporisation of the mercury. Mercury droplets can be grabbed with an acid etched zinc plate and then shaken off into a collection vessel (work over a safety vessel). For reuse store the zinc plate in an area that is under permanent exhaustion or dispose it together with the mercury remains. Ventilate affected area.

#### 6.3.3. Other information

Inform the relevant authorities if the product has entered sewers, waterways, soil or air and might have caused environmental pollution.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

**Advices on safe handling** : Handle with care - avoid bumps, friction and impact. Toxic mercury vapors can be released if the lamp is broken.

**Measures to prevent fire** : Handle with care - avoid bumps, friction and impact. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

**Measures to prevent aerosol and dust generation** : Do not vacuum. Vacuuming could spread mercury-containing powder or mercury vapor.

**Environmental precautions** : Avoid release to the environment.

**Advices on general occupational hygiene** : When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work.

**Further information** : No information available.

### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions** : Special precautions for user: none.

**storage temperature** : No information available.

**Requirements for storage rooms and vessels** : No information available.

**Storage class** : CT3

**Materials to avoid** : No information available.

Further information on storage conditions : No information available.

### 7.3. Specific end use(s)

Recommendation : not applicable

Industrial sector specific solutions : No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limit values

Substance name	Limit value	European Union		The Netherlands		Germany		France	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
MERCURY								(Vapour)	H
	8 hour(s)	0.02		0.02		0.02		0.02	
	15 minutes					0.16			
	C								

Substance name	Limit value	Austria		Belgium		Switzerland		China	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
MERCURY					H	(Vapour)		(Vapour)	H
	8 hour(s)	0.02		0.02		0.05		0.02	
	15 minutes	0.08				0.4		0.04	
	C								
TUNGSTEN		(inhalable dust)				(inhalable dust)			
	8 hour(s)	5				5		5	
	15 minutes	10						10	
	C								

Substance name	Limit value	Spain		United Kingdom		Italy		Norway	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
MERCURY								H	
	8 hour(s)	0.02		0.02		0.02		0.02	
	15 minutes			0.06				0.06	
	C								
TUNGSTEN	8 hour(s)	5		5				5	
	15 minutes	10		10				10	
	C								

Substance name	Limit value	Poland		Portugal		Russia		Sweden	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
MERCURY		(Vapour)		H		(Vapour)			
	8 hour(s)	0.02		0.02		0.05		0.02	
	15 minutes					0.01			
	C								
TUNGSTEN		(inhalable dust)						(dust, total)	
	8 hour(s)	5		5		6		5	
	15 minutes			10					
	C								

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea

25 °C, 1013 mbar: United States / Canada / Japan

[x]: appraisal period x minutes

C: peak limitation

H: skin resorptive

S: Statutory threshold limit value

ALARA: As low as reasonably achievable (ALARA principle).

#### Remark Occupational exposure limit values

none

## DNEL (Derived No Effect Level (DNEL-value))

Substance name		DNEL worker			
		systemic		local	
		long-term	short-term	long-term	short-term
MERCURY	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m <sup>3</sup> ] 00	0.02			
	dermal [mg/kg bw/day]				
TUNGSTEN	oral [mg/kg bw/day]	Not required.			
	Inhalation [mg/m <sup>3</sup> ] 10	5.8			
	dermal [mg/kg bw/day]	1.7			

## PNEC (Predicted No Effect Concentration (PNEC-value))

Substance name	aquatic, freshwater [mg/L]	aquatic, marine water [mg/L]	aquatic, intermittent release [mg/L]	sewage treatment plant [mg/L]	sediment, freshwater [mg/kg sediment dw]	sediment, marine water [mg/kg sediment dw]	soil [mg/kg soil dw]
MERCURY	0.000057	0.000067		0.00225	9.3	9.3	0.022
TUNGSTEN	0.338	0.0338	0.31	0.00586	960	96	2.17

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Safe handling: see section 7

### 8.2.2. Personal protection equipment

**Eye/face protection** : Eye protection: not required.

#### Skin protection

**Hand protection** : Hand protection is not required.

**Body protection** : Body protection: not required.

**Respiratory protection** : Usually no personal respirative protection necessary.

### 8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	: solid
<b>Appearance</b>	: Lumps
<b>Colour</b>	: various
<b>Odour</b>	: odourless
<b>Odour threshold</b>	: No information available.
<b>pH</b>	: not applicable
<b>Melting point/freezing point</b>	: No information available.
<b>Initial boiling point and boiling range</b>	: No information available.
<b>Flash point</b>	: No information available.
<b>Evaporation rate</b>	: not applicable
<b>flammability</b>	: This product contains: Flammable solids.
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper explosion limit</b>	: not applicable
<b>Lower explosion limit</b>	: not applicable
<b>Vapour pressure</b>	: not applicable
<b>Vapour density</b>	: No information available.
<b>Relative density</b>	: No information available.
<b>Solubility(ies)</b>	
<b>Water</b>	: not applicable
<b>Partition coefficient n-octanol/water</b>	: No information available.
<b>Auto-ignition temperature</b>	: not applicable
<b>Decomposition temperature</b>	: No information available.
<b>Viscosity</b>	: not applicable
<b>Explosive properties:</b>	: not applicable
<b>Oxidising properties</b>	: not applicable

### 9.2. Other information

Critical temperature Tc : not applicable  
Fat solubility : not applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Strong mechanical impact.

### 10.5. Incompatible materials

none

### 10.6. Hazardous decomposition products

No known hazardous decomposition products. - Decomposition products in case of fire: see section 5.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Following ingestion : No  
Skin contact : No  
Inhalation : No

Substances	Dose / Concentration	Value	Species	Exposure time	Method
MERCURY					
Inhalation (vapour)	LC50:	>0.053 mg/L	Rat	4 hour(s)	
TUNGSTEN					
oral	LD50:	>2000 mg/kg	Rat		OECD 401
dermal	LD50:	>2000 mg/kg	Rat		OECD 402
Inhalation (dust/mist)	LC50:	>5.4 mg/L	Rat	4 hour(s)	OECD 403

Skin corrosion/irritation : not applicable

Serious eye damage/eye irritation : not applicable

Respiratory or skin sensitisation : not applicable

Germ cell mutagenicity : not applicable

Carcinogenicity : not applicable

Reproductive toxicity : not applicable

STOT-single exposure : not applicable

STOT-repeated exposure : not applicable

Aspiration hazard : not applicable

#### Symptoms

Following inhalation : not applicable

Following skin contact : not applicable

After eye contact : not applicable

Following ingestion : not applicable

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

### 11.2.2. Other information

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance name	Acute (short-term) fish toxicity	Acute (short-term) toxicity to crustacea	Acute (short-term) toxicity to algae and cyanobacteria	Toxicity to other aquatic plants/organisms
MERCURY	LC50: >0.16 mg/L 96 hour(s) Fish - Source: US-EPA			
TUNGSTEN	LC50: >181 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203	EC50: >163 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202		

### 12.2. Persistence and degradability

Biodegradation	: No information available.
Chemical oxygen demand (COD)	: No information available.
Biochemical oxygen demand	: No information available.
BOD5/COD ratio	: No information available.

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF)	: No information available.
Partition coefficient n-octanol/water	: No information available.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

No information available.

### 12.8. Additional ecotoxicological information

Discharge into the environment must be avoided.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Waste should not be disposed of by release to water, drainage, sewer, or the ground. Put the broken lamp parts in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner unless it is a special mercury vacuum cleaner to prevent any vaporisation of the mercury. Disposal should be in accordance with applicable regional, national and local laws and regulations. See section: 6.3.1 and 6.3.2.

Other disposal recommendations : not applicable

## SECTION 14: Transport information

### 14.1. UN number or ID number

UN 3506

### 14.2. UN proper shipping name

MERCURY CONTAINED IN MANUFACTURED ARTICLES

### 14.3. Transport hazard class(es)

8 (6.1)

### 14.4. Packing group

none

### 14.5. Environmental hazards

Marine pollutant : No

### 14.6. Special precautions for user

Hazard identification number (Kemler No.) : none

EmS (IMDG) : F-A, S-B

### 14.7. Maritime transport in bulk according to IMO instruments

No information available.

### 14.8.

<b>ADR / RID</b>	The product is not subject to the transportation regulations of dangerous goods based on special provision: 366 (< 1 kg mercury (Hg).)
<b>IMDG</b>	The product is not subject to the transportation regulations of dangerous goods based on special provision: 366 (< 1 kg mercury (Hg).)
<b>ICAO-TI / IATA-DGR</b>	For transport exemptions consult special provision: A48, A69, A191

## SECTION 15: Regulatory information

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

#### International regulations:

**Minamata Convention on Mercury** : MERCURY

#### EU legislation

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]**  
MERCURY : H2, E1

**This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:**

not applicable

#### **Overall Assessment on CMR properties**

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

#### **Regulation (EC) No 850/2004 [POP-Regulation]**

not applicable

#### **Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.**

not applicable

**Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).**

**Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.**

### 15.2. Chemical Safety Assessment

No information available.

## SECTION 16: Other information

#### **Additional information**

Lamps emit Ultraviolet Radiation (UV). Avoid prolonged exposure.

This product contains : 5.0 mg mercury (Hg).

#### **Relevant H-phrases (Number and full text)**

H228	Flammable solid.
H252	Self-heating in large quantities; may catch fire.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

## Abbreviations and acronyms

ACGIH®	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
BuAc	n-Butyl acetate
CAS	Chemical Abstracts Service
CCID	New Zealand Chemical Classification and Information Database
DSL	Canada Domestic Substances List
ECHA-RAC	ECHA Committee for Risk Assessment
EFSA	European Food Safety Authority
EHSP	OECD Environment, Health, and Safety Publication
EmS	Emergency Schedule
EU-CLH	European Union Harmonised Classification and Labelling
GESTIS	Databases on hazardous substances of the German Social Accident Insurance
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GWBB-VLEP	Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle
HHS	U.S. Department of Health and Human Services
HSDB	Hazardous Substances Data Bank
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INRS	French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases
JP-GHS	Japan GHS Basis for Classification Data
KHC	Known human carcinogens.
LEL	Lower explosion limit
LOLI	LOLI (List of Lists) Database
n.a.	not applicable
NDSL	Canada Non-domestic Substance List
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme
NIER	South Korea National Institute of Environmental Research Evaluations
NLM	United States National Library of Medicine
NTP	National Toxicology Program
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
OSHA	Occupational Safety & Health Administration
QUE	European Odour Unit
RAHC	Reasonably Anticipated Human Carcinogen
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SCOEL	Scientific Committee on Occupational Exposure Limits (EU)
SIDS	OECD Screening Information Data Sets
SUVA	Swiss Accident Insurance Fund
TRGS	Technische Regeln für Gefahrstoffe
TSCA	The Toxic Substances Control Act Chemical Substance Inventory
TWA	Time Weighted Average
UEL	Upper explosion limit
UN	United Nations
US-EPA	United States Environmental Protection Agency

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. AstronUV, a brand of Alcochem Hygiene B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.