SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product Name
Tantalum Diselenide Powder

Synonyms
Tantalum (IV) selenide, Bis(selanylidene)tantalum

Chemical Name
Tantalum Diselenide

Chemical Formula
TaSe2

Product code
M2145C

CAS No.
12039-55-3

EC No.
234-898-2

REACH Registration No.
Not applicable.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified Use(s)
PC21 Laboratory chemicals

1.3 Details of the supplier of the safety data sheet
Company Identification
Ossila Limited

Address of Supplier
Solpro Business Park
Windsor Street
Sheffield

Postal code
S4 7WB, UK

Telephone:
+441142999180

E-mail
info@ossila.com

Office hours
08:00 - 17:00

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Regulation (EC) No. 1272/2008 (CLP)
Acute Tox. 3: Toxic if swallowed
Acute Tox. 3: Toxic if inhaled
STOT RE 2: May cause damage to organs through prolonged or repeated exposure.
Chronic Aquatic Tox 1: Very toxic to aquatic life with long lasting effects.

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements
Product Name
Tantalum Diselenide Powder

Hazard Pictogram(s)

![GHS06
GHS08
GHS09](image)

Signal Word(s)
Danger

Hazard Statement(s)
H301 + H331: Toxic if swallowed or if inhaled
H373: May cause damage to organs through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statement(s)
P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P273: Avoid release to the environment.
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
P314: Get medical advice/attention if you feel unwell.
P405: Store locked up.

2.3 Other hazards
None known.

2.4 Additional Information
Not applicable.
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<IActionResultObjectId>Revision: 1</<IActionResultObjectId>

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENT(S)</th>
<th>CAS No.</th>
<th>EC No. / REACH Registration No.</th>
<th>% W/W</th>
<th>Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tantalum Diselenide</td>
<td>12039-55-3</td>
<td>234-898-2</td>
<td>&lt;=100</td>
<td>Acute Tox. 3 (H301 + H331); STOT RE 2 (H373); Aquatic Chronic 1 (H410)</td>
</tr>
</tbody>
</table>

#### 3.2 Mixtures

Not applicable.

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Inhalation**
Remove person to fresh air and keep comfortable for breathing. Call a poison centre/doctor.

**Skin Contact**
Rinse skin with water. If skin irritation occurs, get medical advice/attention.

**Eye Contact**
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Ingestion**
Rinse out mouth with water. Call a poison centre/doctor.

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

**SECTION 11: Most important symptoms and effects, both acute and delayed**

Treat symptomatically.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable Extinguishing media**
As appropriate for surrounding fire.

**Unsuitable extinguishing media**
As appropriate for surrounding fire.

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

May decompose in a fire, giving off toxic and irritant vapours.

#### 5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Provide adequate ventilation. Wear protective clothing as per section 8.

#### 6.2 Environmental precautions

Avoid release to the environment.

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

Sweep up spilled substance but avoid making dust. Use vacuum equipment for collecting spill materials, where practicable. Dispose of contents in accordance with local, state or national legislation.

#### 6.4 Reference to other sections

See Also Section 8, 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid breathing dust/aerosols. Use only in a well-ventilated area. Wear protective clothing as per section 8.

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

**Storage temperature**
Ambient.

**Storage life**
Stable under normal conditions.

**Incompatible materials**
None known.

#### 7.3 Specific end use(s)

Not known. See Section: 1.2.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

**8.1.1 Occupational Exposure Limits**
No occupational exposure limit assigned.

#### 8.2 Exposure controls

**8.2.1. Appropriate engineering controls**
Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.
8.2.2. Personal protection equipment

Eye Protection: Wear eye protection with side protection (EN166).

Skin protection: Wear protective clothing and gloves: Impervious gloves (EN 374).

Respiratory protection: A suitable mask with filter type A (EN14387 or EN405) may be appropriate.

Thermal hazards: None known.

8.2.3. Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Solid. Powder

Colour: Dark brown

Odour: Not known.

Odour threshold: Not known.

pH: Not known.

Melting point/freezing point: Not known.

Initial boiling point and boiling range: Not known.

Flash Point: Not known.

Evaporation rate: Not known.

Flammability (solid, gas): Not known.

Upper/lower flammability or explosive limits: Not known.

Vapour pressure: Not known.

Vapour density: Not known.

Density (g/ml): Not known.

Relative density: Not known.


Solubility (Other): Not known.

Partition coefficient: n-octanol/water: Not known.

Auto-ignition temperature: Not known.

Decomposition Temperature (°C): Not known.

Viscosity: Not known.

Explosive properties: Not known.

Oxidising properties: Not known.

9.2 Other information:

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Not known.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

No hazardous decomposition products known.
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion  Toxic if swallowed.
Acute toxicity - Skin Contact  Not classified.
Acute toxicity - Inhalation  Toxic if inhaled.
Skin corrosion/irritation  Not classified.
Serious eye damage/irritation  Not classified.
Skin sensitization data  Not classified.
Respiratory sensitization data  Not classified.
Germ cell mutagenicity  Not classified.
Carcinogenicity  Not classified.
Reproductive toxicity  Not classified.
Lactation  Not classified.
STOT - single exposure  Not classified.
STOT - repeated exposure  May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard  Not classified.

11.2 Other information

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates  Not known.
Toxicity - Fish  Not known.
Toxicity - Algae  Not known.
Toxicity - Sediment Compartment  Not classified.
Toxicity - Terrestrial Compartment  Not classified.

12.2 Persistence and Degradation

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.
SECTION 14: TRANSPORT INFORMATION

14.1 UN number
UN No. 3283

14.2 UN proper shipping name
UN proper shipping name SELENIUM COMPOUND, SOLID, N.O.S.

14.3 Transport hazard class(es)
ADR/RID Class 6.1
IMDG Class 6.1
IATA 6.1

14.4 Packing group
Packing group III

14.5 Environmental hazards
Environmental hazards Classified as a Marine Pollutant.

14.6 Special precautions for user
Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
No information available

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
European Regulations - Authorisations and/or Restrictions On Use
Candidate List of Substances of Very High Concern for Authorisation Not listed
REACH: ANNEX XIV list of substances subject to authorisation Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not listed
Community Rolling Action Plan (CoRAP) Not listed
Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed
National regulations Other Not known.

15.2 Chemical Safety Assessment
A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Acronyms
ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
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