ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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

1.1 Product identifier

<table>
<thead>
<tr>
<th><strong>Product Name</strong></th>
<th>Titanium Disulfide Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synonyms</strong></td>
<td>Titanium sulfide, Bis(sulfanylidene)titanium</td>
</tr>
<tr>
<td><strong>Chemical Name</strong></td>
<td>Titanium disulfide</td>
</tr>
<tr>
<td><strong>Chemical Formula</strong></td>
<td>TiS2</td>
</tr>
<tr>
<td><strong>Product code</strong></td>
<td>M2147C</td>
</tr>
<tr>
<td><strong>CAS No.</strong></td>
<td>12039-13-3</td>
</tr>
<tr>
<td><strong>EC No.</strong></td>
<td>234-883-0</td>
</tr>
<tr>
<td><strong>REACH Registration No.</strong></td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th><strong>Company Identification</strong></th>
<th>Ossila Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address of Supplier</strong></td>
<td>Solpro Business Park</td>
</tr>
<tr>
<td></td>
<td>Windsor Street</td>
</tr>
<tr>
<td></td>
<td>Sheffield</td>
</tr>
<tr>
<td><strong>Postal code</strong></td>
<td>S4 7WB, UK</td>
</tr>
<tr>
<td><strong>Telephone</strong></td>
<td>+441142999180</td>
</tr>
<tr>
<td><strong>E-mail</strong></td>
<td><a href="mailto:info@ossila.com">info@ossila.com</a></td>
</tr>
<tr>
<td><strong>Office hours</strong></td>
<td>08:00 - 17:00</td>
</tr>
</tbody>
</table>

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture


- Self-heat 2: Self-heating in large quantities; may catch fire.
- Skin Irrit. 2: Causes skin irritation.
- Eye Irrit. 2: Causes serious eye irritation.
- STOT SE 3: May cause respiratory irritation.

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

2.2 Label elements

<table>
<thead>
<tr>
<th><strong>Product Name</strong></th>
<th>According to Regulation (EC) No. 1272/2008 (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard Pictogram(s)</strong></td>
<td></td>
</tr>
<tr>
<td>GHS02</td>
<td>GHS07</td>
</tr>
<tr>
<td><strong>Signal Word(s)</strong></td>
<td>Warning</td>
</tr>
<tr>
<td><strong>Hazard Statement(s)</strong></td>
<td>H252: Self-heating in large quantities; may catch fire.</td>
</tr>
<tr>
<td></td>
<td>H315: Causes skin irritation.</td>
</tr>
<tr>
<td></td>
<td>H319: Causes serious eye irritation.</td>
</tr>
<tr>
<td></td>
<td>H335: May cause respiratory irritation.</td>
</tr>
<tr>
<td><strong>Precautionary Statement(s)</strong></td>
<td>P235+P410: Keep cool. Protect from sunlight.</td>
</tr>
<tr>
<td></td>
<td>P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</td>
</tr>
<tr>
<td></td>
<td>P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.</td>
</tr>
<tr>
<td></td>
<td>P302+P352: IF ON SKIN: Wash with plenty of water.</td>
</tr>
<tr>
<td></td>
<td>P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</td>
</tr>
<tr>
<td></td>
<td>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td></td>
<td>P405: Store locked up.</td>
</tr>
<tr>
<td></td>
<td>P407 Maintain air gap between stacks/ pallets.</td>
</tr>
<tr>
<td></td>
<td>P420: Store separately.</td>
</tr>
</tbody>
</table>

2.3 Other hazards

None known.
2.4 Additional Information
Not applicable.

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>Titanium Disulfide</td>
<td>12039-13-3</td>
<td>234-883-0</td>
<td>&lt;=100</td>
<td>Self-heat. 2 H252 Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335</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. Get medical advice/attention if you feel unwell.
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. Get medical advice/attention if you feel unwell.

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 spilt 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
Store in a well-ventilated place. Keep container tightly closed. Store locked up. Maintain air gap between stacks or pallets. Store separately.
Storage temperature: Ambient.
Storage life: Sensitive to air, heat and moisture.
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
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.

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:
Golden Yellow

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(ies)
Solubility (Water): 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
Unstable in the presence of air/moisture.

10.3 Possibility of hazardous reactions
Not known.

10.4 Conditions to avoid
Keep away from heat and direct sunlight.
10.5 Incompatible materials
Keep away from oxidising agents.

10.6 Hazardous decomposition products
No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity - Ingestion  Not classified.
Acute toxicity - Skin Contact Not classified.
Acute toxicity - Inhalation  Not classified.
Skin corrosion/irritation  Causes skin irritation.
Serious eye damage/irritation Causes serious eye irritation.
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  May cause respiratory irritation.
STOT - repeated exposure  Not classified.
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.  3174

14.2 UN proper shipping name
UN proper shipping name  Titanium disulfide

14.3 Transport hazard class(es)
ADR/RID  4.2
IMDG  4.1
IATA  4.2

14.4 Packing group
Packing group  III

14.5 Environmental hazards
Environmental hazards  Not classified as a marine pollutant.
14.6 Special precautions for user
Not known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not known.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Not listed

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
RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative

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