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
Product Name          TPBi
Synonyms             2,2',2''-(1,3,5-Benzinetriyl)-tris(1-phenyl-1-H-benzimidazole)
Chemical Name       2,2',2''-(1,3,5-Benzinetriyl)-tris(1-phenyl-1-H-benzimidazole)
Chemical Formula   C45H30N6
Product code        M651
CAS No.             2192198-85-9
EC No.               Not available.
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
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements
The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards
None known.

2.4 Additional Information
Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
No components need to be disclosed according to the applicable regulations.

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

4.3 Indication of any immediate medical attention and special treatment needed
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.
Storage temperature
Ambient.
Storage life
Product is light sensitive. Store in the dark.
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
Normally no personal respiratory protection is necessary.

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/crystals
Colour: White
Odour
Not known.
Odour threshold
Not known.
pH
Not known.
Melting point/freezing point
272-277°C (lit.)
Initial boiling point and boiling range
Not known.
Flash Point
Not known.
Evaporation rate
Not known.
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not known.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not known.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not known.</td>
</tr>
<tr>
<td>Density (g/ml)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not known.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Solubility (Water): Not known.</td>
</tr>
<tr>
<td></td>
<td>Solubility (Other): Chlorobenzene, chloroform, toluene</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not known.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not known.</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not known.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not known.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not known.</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Ingestion</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Acute toxicity - Skin Contact</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Skin sensitization data</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Respiratory sensitization data</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Lactation</td>
<td>Not classified.</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>Not classified.</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified.</td>
</tr>
</tbody>
</table>

11.2 Other information

Not known.

### SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity - Aquatic invertebrates</td>
<td>Not known.</td>
</tr>
<tr>
<td>Toxicity - Fish</td>
<td>Not known.</td>
</tr>
<tr>
<td>Toxicity - Algae</td>
<td>Not known.</td>
</tr>
<tr>
<td>Toxicity - Sediment Compartment</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Toxicity - Terrestrial</td>
<td>Not classified.</td>
</tr>
</tbody>
</table>

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

IATA/IMO/RID/ADR
Not classified as hazardous for transport.

SECTION 15: REGULATORY INFORMATION

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

<table>
<thead>
<tr>
<th>Regulation/Act</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidate List of Substances of Very High Concern for Authorisation</td>
<td>Not listed</td>
</tr>
<tr>
<td>REACH: ANNEX XIV list of substances subject to authorisation</td>
<td>Not listed</td>
</tr>
<tr>
<td>REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</td>
<td>Not listed</td>
</tr>
<tr>
<td>Community Rolling Action Plan (CoRAP)</td>
<td>Not listed</td>
</tr>
<tr>
<td>Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer</td>
<td>Not listed</td>
</tr>
<tr>
<td>National regulations</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Not known.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</td>
</tr>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Road</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No Effect Level</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IBC</td>
<td>Intermediate Bulk Container</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods</td>
</tr>
<tr>
<td>LTEL</td>
<td>Long term exposure limit</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Regulations concerning the International Carriage of Dangerous Goods by Rail</td>
</tr>
<tr>
<td>STEL</td>
<td>Short term exposure limit</td>
</tr>
</tbody>
</table>
STOT: Specific Target Organ Toxicity  
UN: United Nations  
vPvB: very Persistent and very Bioaccumulative

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