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

1.1 Product identifier

Product Name: Ir(ppy)3

Synonyms: Tris[2-phenylpyridine]iridium(III), Tris(2-phenylpyridinato)iridium(III), Tris[2-phenylpyridine-c2,n]iridium(III)

Chemical Name: Tris[2-(2-pyridinyl)phenyl]iridium(III)

Chemical Formula: C33H24IrN3

CAS No.: 94928-86-6

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

Regulation (EC) No. 1272/2008 (CLP)

Skin Irrit. 2: Causes skin irritation

Eye Irrit. 2A: Causes serious eye irritation

STOT SE 3: May cause respiratory irritation

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name: Ir(ppy)3

Hazard Pictogram(s): GHS07

Signal Word(s): Warning

Hazard Statement(s): H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

Precautionary Statement(s): P302 + P352: IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER or doctor if you feel unwell.

P337 + P313: If eye irritation persists: Get medical advice/attention.

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>%W/W</th>
<th>Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tris[2-(2-pyridinyl)phenyl]iridium(III)</td>
<td>94928-86-6</td>
<td>&lt;= 100</td>
<td>Skin Irrit. 2 H315 Eye Irrit. 2A 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

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

SECTION 5: FIGHTING 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 vapours/mist/dust/aerosols. Use only in a well-ventilated area. Wear protective clothing as per section 8. Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
Storage temperature Ambient.
Storage life Product is air and light sensitive. Store in the dark. Handle and store under inert gas.
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.

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>LTEL (8 hr TWA mg/m³)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m³)</th>
<th>Note</th>
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</tr>
</tbody>
</table>

Region Source
EU EU Occupational Exposure Limits
United Kingdom UK Workplace Exposure Limits EH40/2005 (Third edition, published 2018)

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

- Colour: Yellow.
- Odour: Not known.
- Odour threshold: Not known.
- pH: Not known.
- Melting point/freezing point: 451 °C (lit.)
- 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.
- 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: No data available.
- Acute toxicity - Skin Contact: No data available.
**Acute toxicity - Inhalation**  No data available.
**Skin corrosion/irritation**  No data available.
**Serious eye damage/irritation**  No data available.
**Skin sensitization data**  No data available.
**Respiratory sensitization data**  No data available.
**Germ cell mutagenicity**  No data available.
**Carcinogenicity**  No data available.
**Reproductive toxicity**  No data available.
**Lactation**  No data available.
**STOT - single exposure**  No data available.
**STOT - repeated exposure**  No data available.
**Aspiration hazard**  No data available.

### 11.2 Other information
Not known.

### SECTION 12: ECOLOGICAL INFORMATION

**12.1 Toxicity**  No data available.
**Toxicity - Aquatic invertebrates**  No data available.
**Toxicity - Fish**  No data available.
**Toxicity - Algae**  No data available.
**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, reclamer 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**

- **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, placement 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
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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