### SAFETY DATA SHEET


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

### 1.1 Product identifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Name</strong></td>
<td>F4TCNQ</td>
</tr>
<tr>
<td><strong>Synonyms</strong></td>
<td>F4-TCNQ, (2,3,5,6-Tetrafluoro-2,5-cyclohexadiene-1,4-diyldenedimalononitrile, 7,7,8,8-Tetracyano-2,3,5,6-tetrafluorquinodimethane</td>
</tr>
<tr>
<td><strong>Chemical Name</strong></td>
<td>2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane</td>
</tr>
<tr>
<td><strong>Chemical Formula</strong></td>
<td>C12F4N4</td>
</tr>
<tr>
<td><strong>CAS No.</strong></td>
<td>29261-33-4</td>
</tr>
<tr>
<td><strong>EC No.</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Index No.</strong></td>
<td>Not Applicable</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, Research and development use only

### 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

### 1.4 Emergency telephone number

<table>
<thead>
<tr>
<th>Other Regions</th>
<th>Emergency Phone Number (CHEMTREC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe, Middle East, Africa</td>
<td>+44 20 3885 0382</td>
</tr>
<tr>
<td>North America</td>
<td>+1 703 527 3887</td>
</tr>
<tr>
<td>Central America</td>
<td>+52 55 8526 4930</td>
</tr>
<tr>
<td>South America</td>
<td>+55 11 4349 1359</td>
</tr>
<tr>
<td>Asia, India, and Oceania</td>
<td>+65 3163 8374</td>
</tr>
</tbody>
</table>

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

  - Acute Tox. 3: Toxic if swallowed.
  - Acute Tox. 3: Toxic in contact with skin.
  - Acute Tox. 3: Toxic if inhaled

### 2.2 Label elements

- **Product Name**: F4TCNQ
- **Hazard Pictogram(s)**: GHS06
- **Signal Word(s)**: Danger
- **Hazard Statement(s)**: H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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.</th>
<th>%W/W</th>
<th>Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane</td>
<td>29261-33-4</td>
<td>Not Applicable</td>
<td>&lt;100</td>
<td>Acute Tox. 3 H301</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 H311</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 H331</td>
</tr>
</tbody>
</table>

3.2 Mixtures
Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice
First aiders should ensure they have taken adequate steps to protect themselves from exposure (see Section 8 for recommended personal protection equipment). Show this safety data sheet to the doctor in attendance.

Inhalation
Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

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
Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed, are included on labelling (Section 2.2) and in Section 11.

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

Carbon oxides
Nitrogen oxides (NOx)
Hydrogen fluoride

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

Follow safe handling advice and personal protective equipment recommendations (as per section 8). Provide adequate ventilation.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Sweep up spilled substance - 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

Advice on safe handling
Avoid inhalation, ingestion, and contact with skin and eyes. Use only in a well-ventilated area. Wear protective clothing as per section 8.

Hygiene measures
Keep away from food and drink. Wash hands after handling, before breaks, and at the end of workday.

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)  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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 and/or exhaust. 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 tested and approved under appropriate government standards such as EN166 (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use and proper glove removal techniques should be used. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls.

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
Physical State
Solid: Powder/Crystals.

Colour
Brown/Yellow.

Odour
Not known.

Odour threshold
Not known.

Melting point/freezing point
291 °C

Initial boiling point and boiling range
Not known.

Flammability
Not known.

Lower and upper explosion limit
Not known.

Flash Point
Not known.

Auto-ignition temperature (°C)
Not known.

Decomposition temperature (°C)
Not known.

pH
Not known.

Kinematic viscosity
Not known.

Solubility (Water):
Not known.

Solubility (Other):
Not known.

Partition coefficient: n-octanol/water (log value)
Not known.

Vapour pressure
Not known.

Density
Not known.

Relative density
Not known.

Relative vapour density
Not known.

Particle characteristics
Not known.

9.2 Other information
None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
None anticipated.

10.2 Chemical Stability
Stable under recommended storage 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
In the event of fire: see Section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity - Ingestion
Toxic if swallowed.
Acute toxicity - Skin Contact: Toxic in contact with skin.
Acute toxicity - Inhalation: Toxic if inhaled.
Skin corrosion/irritation: Not classified.
Serious eye damage/irritation: Not classified.
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: Not classified.
STOT - repeated exposure: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard: No data available.

11.2 Information on other hazards
11.2.1 Endocrine disrupting properties: None known.
11.2.2 Information on other hazards: None known.

SECTION 12: ECOLOGICAL INFORMATION

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

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: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties: Not known.

12.7 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. 3439

14.2 UN proper shipping name: UN proper shipping name: Nitriles, solid, toxic, n.o.s.

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

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: Special precautions for user: Not known.

14.7 Maritime transport in bulk according to IMO instruments: Not known.
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) No 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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