

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

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**1.1 Product identifier**

|                        |  |
|------------------------|--|
| Product Name           | 4CzFCN   |
| Synonyms               | 2,3,4,6-tetrakis(9H-carbazole-9-yl)-5-fluorobenzonitrile |
| Chemical Name          | 2,3,4,6-Tetra(9H-carbazol-9-yl)-5-fluorobenzonitrile     |
| Chemical Formula       | C55H32FN5  |
| CAS No.                | 1819362-10-1   |
| 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<br>Windsor Street<br>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<br>Eye Irrit. 2A: Causes serious eye irritation<br>STOT SE 3: May cause respiratory irritation |
|-------------------------------------|--|

**2.2 Label elements**

|              |  |
|--------------|--|
| Product Name | According to Regulation (EC) No. 1272/2008 (CLP)<br>4CzFCN |
|--------------|--|

Hazard Pictogram(s)



GHS07

|                |         |
|----------------|---------|
| Signal Word(s) | Warning |
|----------------|---------|

|                     |   |
|---------------------|---|
| Hazard Statement(s) | H315: Causes skin irritation<br>H319: Causes serious eye irritation<br>H335: May cause respiratory irritation |
|---------------------|---|

|                            |   |
|----------------------------|---|
| Precautionary Statement(s) | P302 + P352: IF ON SKIN: Wash with plenty of water.<br>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P312: Call a POISON CENTER or doctor if you feel unwell.<br>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**

| HAZARDOUS INGREDIENT(S)                              | CAS No.      | %W/W   | Hazard Statement(s)  |
|--|--------------|--------|--|
| 2,3,4,6-Tetra(9H-carbazol-9-yl)-5-fluorobenzonitrile | 1819362-10-1 | <= 100 | Skin Irrit. 2 H315<br>Eye Irrit. 2A H319<br>STOT SE 3 H335 |

**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 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 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.

Occupational Exposure Limits

| SUBSTANCE. | CAS No.      | LTEL (8 hr TWA ppm) | LTEL (8 hr TWA mg/m³) | STEL (ppm) | STEL (mg/m³) | Note |
|------------|--------------|---------------------|-----------------------|------------|--------------|------|
|            | 1819362-10-1 |                     |                       |            |              |      |

Region EU Source 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

|  |  |
|--|--|
| Appearance                                   | Solid: Powder/Crystals.<br>Colour: Deep Yellow.                  |
| Odour  | Not known.   |
| Odour threshold                              | Not known.   |
| pH   | Not known.   |
| Melting point/freezing point                 | Tg = 179 °C  |
| 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.<br>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    | No data available. |
| Acute toxicity - Skin Contact | No data available. |

|                                |                         |
|--------------------------------|-------------------------|
| Acute toxicity - Inhalation    | No data available.      |
| Skin corrosion/irritation      | Causes skin irritation. |
| 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.      |
| <b>11.2 Other information</b>  | Not known.              |

---

**SECTION 12: ECOLOGICAL INFORMATION**

---

**12.1 Toxicity**

|                                    |                    |
|------------------------------------|--------------------|
| 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, reclaimor 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, 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° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals 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

## Disclaimers

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Ossila Limited gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Ossila Limited accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.