

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 Graphene quantum dots - blue  
Synonyms GQDs  
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, 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

Emergency Phone # +44 (0) 20 3885 0382 (CHEMTREC)

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

## 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

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

This product is a mixture.

### 3.2 Mixtures

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

## 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. 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

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

**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 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**

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

Store in a well-ventilated place. Keep container tightly closed.

Storage life

3-5 °C

Incompatible materials

Stable under normal conditions.

**7.3 Specific end use(s)**

None known.

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

No personal respiratory protection is necessary under normal circumstances.

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

Liquid.

Colour

Clear.

Odour

Not known.

Odour threshold

Not known.

Melting point/freezing point

Not known.

Initial boiling point and boiling range

100 °C

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(ies)

Solubility (Water): Not known.

Solubility (Other): Water.

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 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 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**

Toxicity - Aquatic invertebrates No data available  
 Toxicity - Fish No data available  
 Toxicity - Algae No data available  
 Toxicity - Sediment Compartment No data available  
 Toxicity - Terrestrial Compartment No data available

**12.2 Persistence and Degradation**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**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.

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**SECTION 13: DISPOSAL CONSIDERATIONS**


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**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.

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**SECTION 14: TRANSPORT INFORMATION**


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IATA/IMO/RID/ADR

Not classified as hazardous for transport.

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**SECTION 15: REGULATORY INFORMATION**


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**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

Other

Not known.

Other

Not known.

**National regulations**

Other

Not known.

**15.2 Chemical Safety Assessment**

A REACH chemical safety assessment has not been carried out.

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**SECTION 16: OTHER INFORMATION**


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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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