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

1.1 Product identifier

Product Name: MWCNT
Synonyms: Multi-wall carbon nanotubes, MWNT
Chemical Name: Multi-walled carbon nanotubes
Chemical Formula: C
CAS No.: 308068-56-6
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)
Eye Irrit. 2A: Causes serious eye irritation
STOT SE 3: May cause respiratory irritation

2.2 Label elements

Product Name: MWCNT
Hazard Pictogram(s): GHS07
Signal Word(s): Warning
Hazard Statement(s): H319: Causes serious eye irritation
H335: May cause respiratory irritation
Precautionary Statement(s): 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>Multi-walled carbon nanotubes</td>
<td>308068-56-6</td>
<td>&gt;95%</td>
<td>Eye Irrit. 2A H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3 H335</td>
</tr>
<tr>
<td>Carbon Nanotubes (other)</td>
<td>308068-56-6</td>
<td>&lt;5%</td>
<td>Eye Irrit. 2A H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.

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

Storage temperature
Ambient.

Storage life
Stable under normal conditions.

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
UK – EH40 Workplace Exposure Limits (WEL).

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite inhalable dust</td>
<td>7440-44-0</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>respiroable</td>
<td>7440-44-0</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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: Fibrous Powder.

Colour: Black.

Odour  
Not known.

Odour threshold  
Not known.

pH  
Not known.

Melting point/freezing point  
Not known.

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): Insoluble.

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: 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, 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
European Regulations - Authorisations and/or Restrictions On Use
Candidate List of Substances of Very High Concern for Authorisation
REACH: ANNEX XIV list of substances subject to authorisation
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer
National regulations Other
Not listed
Not listed
Not listed
Not listed
Not listed
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
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative

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