SAFETY DATA SHEET

Revision Date: 06/09/2022
Revision #: 3

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: SWCNT
Synonyms: SWNT
Chemical Name: Single-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: According to Regulation (EC) No. 1272/2008 (CLP)
Hazard Pictogram(s): SWCNT
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>Substances</th>
<th>CAS No.</th>
<th>%W/W</th>
<th>Hazard Statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-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.

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

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 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

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
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>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>respirobl</td>
<td>7440-44-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Region: EU

Source: EU Occupational Exposure Limits

United Kingdom


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
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid: Fibrous Powder.</td>
</tr>
<tr>
<td>Colour</td>
<td>Black.</td>
</tr>
<tr>
<td>Odour</td>
<td>Not known.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not known.</td>
</tr>
<tr>
<td>pH</td>
<td>Not known.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not known.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not known.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not known.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not known.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not known.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not known.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not known.</td>
</tr>
<tr>
<td>Density (g/ml)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not known.</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Insoluble.</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not known.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not known.</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not known.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not known.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not known.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Ingestion</td>
<td>No data available.</td>
</tr>
<tr>
<td>Acute toxicity - Skin Contact</td>
<td>No data available.</td>
</tr>
</tbody>
</table>
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
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 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° 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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