**SAFETY DATA SHEET**

**Product Name:** o-Terphenyl

**SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product Description:** o-Terphenyl

**Supplier:**
- Alfa Aesar
- Avocado Research Chemicals, Ltd.
  - Shore Road
  - Port of Heysham Industrial Park
  - Heysham, Lancashire LA3 2XY
  - United Kingdom
  - Office Tel: +44 (0) 1524 850506
  - Office Fax: +44 (0) 1524 850608

**Emergency Telephone Number:**
- Call Carechem 24 at
  - +44 (0) 1865 407333 (English only);
  - +44 (0) 1235 239670 (Multi-language)

**E-mail address:**
- uktech@alfa.com
- www.alfa.com

**Recommended Use:** Laboratory chemicals.

**Uses advised against:** No Information available

**SECTION 2. HAZARD IDENTIFICATION**

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Appearance</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Crystalline</td>
<td>White</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**Emergency Overview:** Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects.

**Classification of the substance or mixture**

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity - (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

**Label Elements**
Signal Word  Warning

Hazard Statements
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements
Prevention
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
Response
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
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/ physician if you feel unwell
P330 - Rinse mouth
P362 - Take off contaminated clothing and wash before reuse
Storage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
Disposal
P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards
None identified.

Health Hazards
Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Environmental hazards
Very toxic to aquatic life with long lasting effects. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil. The product is insoluble and sinks in water.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>o-Terphenyl</td>
<td>84-15-1</td>
<td>&lt;=100</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General Advice
If symptoms persist, call a physician.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation**
Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion**
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms and effects**
None reasonably foreseeable.

**Self-Protection of the First Aider**
No special precautions required.

**Notes to Physician**
Treat symptomatically.

### SECTION 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Carbon dioxide (CO₂). Dry powder. Water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Extinguishing media which must not be used for safety reasons**
No information available.

**Specific Hazards Arising from the Chemical**
Do not allow run-off from fire fighting to enter drains or water courses.

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**
Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

**Environmental Precautions**
Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**Methods for Containment and Clean Up**
Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

### SECTION 7. HANDLING AND STORAGE

**Handling**
Wear personal protective equipment. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

**Storage**
Keep container tightly closed in a dry and well-ventilated place.

**Specific Use(s)**
Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>European Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>o-Terphenyl</td>
<td></td>
<td></td>
<td>IDLH: 500 mg/m³</td>
<td>Ceiling: 0.5 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ceiling: 5 mg/m³</td>
</tr>
</tbody>
</table>

Monitoring methods
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Exposure Controls

Engineering Measures
None under normal use conditions. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye Protection
Goggles (European standard - EN 166)

Hand Protection
Protective gloves

<table>
<thead>
<tr>
<th>Glove material</th>
<th>Breakthrough time</th>
<th>Glove thickness</th>
<th>EU standard</th>
<th>Glove comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td>See manufacturers</td>
<td>-</td>
<td>EN 374</td>
<td>(minimum requirement)</td>
</tr>
<tr>
<td>Neoprene</td>
<td></td>
<td></td>
<td></td>
<td>(minimum requirement)</td>
</tr>
<tr>
<td>Natural rubber</td>
<td></td>
<td></td>
<td></td>
<td>(minimum requirement)</td>
</tr>
<tr>
<td>PVC</td>
<td></td>
<td></td>
<td></td>
<td>(minimum requirement)</td>
</tr>
</tbody>
</table>

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.
(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection
Long sleeved clothing

Respiratory Protection
No protective equipment is needed under normal use conditions.

Large scale/emergency use
Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particle filter

Small scale/Laboratory use
Maintain adequate ventilation

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
White

Physical State
Solid Crystalline
SECTION 10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions.

Hazardous Reactions
None under normal processing.

Hazardous Polymerization
No information available.

Conditions to Avoid
None known.

Materials to avoid
Oxidizing agents.

Hazardous Decomposition Products
Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

(a) acute toxicity:

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>o-Terphenyl</td>
<td>LD50 = 1900 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) skin corrosion/irritation;
Category 2

(c) serious eye damage/irritation;
Category 2

(d) respiratory or skin sensitization;
Respiratory
No data available

Skin
No data available
(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available
There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; Category 3
Results / Target organs Respiratory system

(i) STOT-repeated exposure; No data available
Target Organs None known.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects, both acute and delayed No information available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Persistence and Degradability
Persistence Insoluble in water.

Degradation in sewage treatment plant Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential May have some potential to bioaccumulate

Mobility in soil Spillage unlikely to penetrate soil. The product is insoluble and sinks in water. Is not likely mobile in the environment due its low water solubility.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

Persistent Organic Pollutant This product does not contain any known or suspected substance.

Ozone Depletion Potential This product does not contain any known or suspected substance.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Should not be released into the environment. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

Other Information Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this
SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport

UN-No: UN3077
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
Technical Shipping Name: (o-Terphenyl)
Hazard Class: 9
Packing Group: III

IMDG/IMO

UN-No: UN3077
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
Technical Shipping Name: (o-Terphenyl)
Hazard Class: 9
Packing Group: III

IATA

UN-No: UN3077
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
Technical Shipping Name: (o-Terphenyl)
Hazard Class: 9
Packing Group: III

Special Precautions for User

No special precautions required

SECTION 15. REGULATORY INFORMATION

International Inventories

X = listed

<table>
<thead>
<tr>
<th>Component</th>
<th>The Inventory of Hazardous Chemicals (2015 Edition)</th>
<th>List of Dangerous Goods GB 12268 - 2012</th>
<th>Taiwan Toxic Chemical Substances Inventory</th>
<th>IECSC</th>
<th>EINECS</th>
<th>TSCA</th>
<th>DSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>o-Terphenyl</td>
<td></td>
<td>X</td>
<td>X</td>
<td>201-517-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

National Regulations

SECTION 16. OTHER INFORMATION

Prepared By: Health, Safety and Environmental Department
Revision Date: 09-Jul-2018
Revision Summary: SDS authoring systems update, replaces ChemGes SDS No. 84-15-1/2.

Training Advice
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and
hygiene.
Chemical incident response training.

**Legend**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Chemicals and Chemical Substances</td>
</tr>
<tr>
<td>IECSC</td>
<td>Chinese Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>KECL</td>
<td>Korean Existing and Evaluated Chemical Substances</td>
</tr>
<tr>
<td>WEL</td>
<td>Workplace Exposure Limit</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No Effect Level</td>
</tr>
<tr>
<td>RPE</td>
<td>Respiratory Protective Equipment</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative, Toxic</td>
</tr>
<tr>
<td>ADR</td>
<td>European Agreement Concerning the International Carriage of Dangerous Goods by Road</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>International Maritime Organization/International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>TCA</td>
<td>United States Toxic Substances Control Act Section 8(b) Inventory</td>
</tr>
<tr>
<td>TSCA</td>
<td>United States Toxic Substances Control Act Section 8(b) Inventory</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Canadian Domestic Substances List/Non-Domestic Substances List</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japanese Existing and New Chemical Substances</td>
</tr>
<tr>
<td>AICS</td>
<td>Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>POW</td>
<td>Partition coefficient Octanol:Water</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent, very Bioaccumulative</td>
</tr>
<tr>
<td>ICAO/IATA</td>
<td>International Civil Aviation Organization/International Air Transport Association</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
</tbody>
</table>

**Key literature references and sources for data**

Suppliers safety data sheet, Chemadvisor - LOI, Merck index, RTECS

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**