


**SECTION 1 – IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

<b>Chemical Nature:</b>	Citrus base solution		
<b>Trade Name:</b>	<b>Orange Oil</b>		
<b>SUPPLIER:</b>	Aquatic Technologies		
<b>ADDRESS:</b>	41 Yazaki Way Carrum Downs VIC 3201, Australia		
<b>TELEPHONE</b>	<b>+61 3 9071 2442</b>	<b>FAX:</b>	
<b>Substance:</b>	Liquid	<b>Product Use:</b>	Water Surface Clearer
<b>This version issued:</b>	November 2020	<b>Up for revision:</b>	November 2025
<b>In case of Emergency:</b>	13 11 26 – Poisons Information Centre		

**SECTION 2 – HAZARDS IDENTIFICATION**

<b>Classification of the substance or mixture</b>	
<ul style="list-style-type: none"> <li>This product is classified as <b>HAZARDOUS</b> according to the criteria of SWA</li> <li>This product is <b>NOT</b> a <b>DANGEROUS GOOD</b> according to Australian Dangerous Goods (ADG) Code</li> <li>The product is classified as <b>DANGEROUS</b> according to GHS</li> </ul>	
<b>GHS – GLOBALLY HARMONISED SYSTEM</b>	
<b>GHS Classification</b>	Skin Irritation – Category 2 Serious Eye Damage/Irritation – Category 1 Skin Sensitisation – Category 2
<b>GHS Pictogram</b>	
<b>GHS Signal Word</b>	<b>DANGER</b>
<b>Hazard Statement(s)</b>	
<b>H317:</b>	May cause an allergic skin reaction
<b>H315:</b>	Causes skin irritation
<b>H318:</b>	Causes serious eye damage
<b>General</b>	
<b>P101:</b>	If medical advice is needed, have product container or label at hand
<b>P102:</b>	Keep out of reach of children
<b>P103:</b>	Read label before use
<b>Prevention</b>	
<b>P261+P272:</b>	Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace
<b>P264+P280:</b>	Wash hands thoroughly after use. Wear protective gloves
<b>P280:</b>	Wear protective gloves, protective clothing and eye or face protection
<b>Response</b>	
<b>P304+P340:</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
<b>P302+P352:</b>	IF ON SKIN: Wash with plenty of soap and water
<b>P321:</b>	Specific treatment (see First Aid on safety data sheet)
<b>P332+P313:</b>	If skin irritation occurs: get medical advice/attention
<b>P362:</b>	Take off contaminated clothing and wash before reuse
<b>P305+P351+P338:</b>	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses if present and if easy to do
<b>P363:</b>	Wash contaminated clothing before use
<b>P310:</b>	Immediately call a POISON CENTER or doctor/physician
<b>Storage</b>	
<b>P403+P233+P405:</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up

Disposal	
P501:	Dispose of contents/container in accordance with local regulations
EMERGENCY OVERVIEW	
Colour:	Orange
Odour:	Citrus
Physical Description:	Liquid
Major Health Hazards:	None known
Note	
<b>IMPORTANT</b>	<b>This SDS and the Hazard Classifications contained therein, only apply to the product in its concentrated form, as supplied. When diluted to 1:5 or greater they no longer apply. However, good hygiene and housekeeping practices should be adhered to.</b>

### SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Proportion:
D-Limonene	5989-27-5	< 10% w/w
Ingredients determined to be nonhazardous (nonionic surfactants, chelators, dye)	various	Balance
NOTE:	Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from NOHSC publication "List of Designated Hazardous Substances" or have been found NOT to meet the criteria of a hazardous substance as defined in the NOHSC publication "Approved Criteria for Classifying Hazardous Substances", or have been found NOT to meet the criteria of a dangerous substance as defined in the GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) , 4th edition United Nations 2011.	

### SECTION 4 – FIRST AID MEASURES

**Scheduled Poisons:** Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 0800 764 766).

**First Aid Facilities:** Ensure there is access to eye washes and safety showers.

**Inhalation:** Remove victim to fresh air away from exposure. Obtain medical attention if symptoms occur.

**Skin Contact:** Wash skin with plenty of water. Seek medical advice (e.g. doctor) if irritation, burning or redness develops. Seek medical advice (e.g. doctor).

**Eye Contact:** Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Seek urgent medical advice (e.g. ophthalmologist) if symptoms persist.

**Ingestion:** Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek urgent medical advice (e.g. doctor).

**Advice to Doctor:** Treat symptomatically. All treatments should be based on observed signs and symptoms of distress of the patient. Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons.

### SECTION 5 – FIRE FIGHTING MEASURES

<b>Fire and Explosion Hazards:</b>	Non flammable
<b>Extinguishing Media:</b>	Use an extinguishing media suitable for surrounding fires
<b>Fire Fighting:</b>	Keep containers exposed to extreme heat cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion or decomposition

<b>Flash point:</b>	Non combustible
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### SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures:</b>	<ul style="list-style-type: none"> <li>• Shut off engine and electrical equipment and leave off.</li> <li>• Move people from immediate area; keep upwind.</li> <li>• Stop leak if safe to do so.</li> <li>• Send messenger to notify fire brigade and police.</li> <li>• Tell them location, material quantity, emergency contact.</li> <li>• Indicate condition of vehicle and damage or injuries observed.</li> <li>• Warn other traffic</li> </ul>
<b>Occupational Release:</b>	<p>Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water courses. Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, earth or vermiculite), which then can be put into appropriately labelled drums for disposal by an approved agent according to local conditions. Residual deposits will remain slippery. Wash area down with excess water. If required, neutralize with citric acid or acetic acid. If contamination of sewers or waterways has occurred advise the local emergency services. In the event of a large spillage notify the local environment protection authority or emergency services.</p>

### SECTION 7 – HANDLING AND STORAGE

<b>Handling:</b>	<p>As with any chemical, avoid excessive personal contact. Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with water after handling. Work clothes should be laundered. Launder contaminated clothing before re-use.</p>
<b>Storage:</b>	<p>Store in a cool, dry, place with good ventilation. Avoid storing in aluminum and light alloy containers. Store away from acids. Keep containers closed at all times – check regularly for leaks.</p>

### SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Control Parameters</b>	
<b>Occupational Exposure Limits:</b>	No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.
<b>Biological Limits:</b>	No biological limits allocated.
<b>PERSONAL PROTECTION EQUIPMENT (PPE)</b>	
<b>Ventilation:</b>	This product should only be used in a well ventilated area. Ensure ventilation is adequate to maintain air concentrations below exposure standards.
<b>Eye Protection:</b>	Eye protection such as protective glasses or goggles is recommended when this product is being used. Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.
<b>Skin Protection:</b>	Overalls, apron, work boots and elbow length gloves are recommended for handling the concentrated product (as per AS/NZS 2161, or as recommended by supplier) to handle in quantity, cleaning up spills, decanting, etc.
<b>Protective Material Types:</b>	Material suitable for mild detergent contact – Butyl rubber, Natural Latex, Neoprene, PVC, and Nitrile.
<b>Respirator:</b>	Not required for normal cleaning operations with adequate ventilation. If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical Description and Colour:</b>	Orange liquid
<b>Odour:</b>	Faint citrus
<b>Boiling Point:</b>	Not relevant
<b>Freezing / Melting Point:</b>	Not relevant
<b>Vapour Pressure:</b>	Not available
<b>Vapour Density:</b>	Not available
<b>Specific Gravity:</b>	~ 1.1 @ 25 °C
<b>Water Solubility:</b>	Miscible in all proportions
<b>pH:</b>	~ 8 @ 25 °C (1% w/w water)
<b>Volatile Organic Compounds (VOC):</b>	0% v/v
<b>Flammable Limits:</b>	None
<b>Viscosity:</b>	Not available
<b>Coeff Oil/Water Distribution:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Per Cent Volatile:</b>	Not available

**SECTION 10 – STABILITY AND REACTIVITY**

<b>Reactivity:</b>	Stable at normal temperatures and pressure.
<b>Chemical Stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Conditions to Avoid:</b>	Avoid contact with heat or heat sources. Acids.
<b>Incompatibilities:</b>	ACIDS: reaction can occur, yielding heat and pressure which can burst an enclosed container. Attacks many reactive metals (aluminium/magnesium/zinc alloys) releasing highly flammable gas (hydrogen) which generates fire or explosion hazards. Reacts slowly with ambient air (particularly carbon dioxide) which may cause certain insoluble salts to form in solutions.
<b>Hazardous Decomposition Products:</b>	Product can decompose on combustion to form Carbon Monoxide, Carbon Dioxide, and other possibly toxic gases and vapours. Acids (especially hydrochloric acid); will generate toxic gas.
<b>Hazardous Reactions:</b>	None known.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

<b>Potential Health Effects</b>	
<b>No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:</b>	
<b>Inhalation:</b>	Inhalation over exposure may result in mucous membrane irritation of the respiratory tract and coughing
<b>Skin Contact:</b>	Skin contact may result in irritation, redness, pain, rash, dermatitis. Severity depends on the concentration and duration of exposure
<b>Eye Contact:</b>	Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage
<b>Ingestion:</b>	Ingestion may result in irritation to the mouth and throat, nausea, vomiting
<b>Chronic:</b>	No known effects
<b>ORANGE OIL</b>	
<b>Toxicity</b>	LD50 calculated >10,000mg/kg not toxic
<b>Irritation</b>	Mild irritation – skin Severe irritation - eyes

**SECTION 12 – ECOLOGICAL INFORMATION**

<b>General</b>	No single ingredient (over 1%) recognised as environmental pollutant. Product miscible in all proportions with water. AS WITH ANY CHEMICAL PRODUCT, DO NOT DISCHARGE INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Inform local authorities if this occurs.
<b>Aquatic Toxicity</b>	
<b>Orange Oil (as sold)</b>	Acute Toxicity to fish (calculated from ingredients): LC50: 5 - 7 mg/L Acute Aquatic Toxicity Cat 2. Harmful to aquatic life. Biodegradable

<b>Orange Oil (at use dilution)</b>	Acute Aquatic Toxicity (Calculated) LC50: 586 - 670 mg/L. Acute Aquatic Toxicity NOT HAZARDOUS – Not harmful to aquatic life. LC50 > 100mg/L
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### SECTION 13 – DISPOSAL CONSIDERATIONS

**Product and Packaging Disposal:** Dispose of contents/container to chemical landfill. Consult local or regional waste management authority for further details.

### SECTION 14 – TRANSPORT INFORMATION

**UN Number:** This product is not classified as a Dangerous Good by ADG, ICAO-IATA/DGR or IMDG-Code/GGVSee criteria. No special transport conditions are necessary unless required by other regulations

### SECTION 15 – REGULATORY INFORMATION

#### Labeling Details

<b>GHS Classification</b>	Skin Irritation – Category 2 Serious Eye Damage/ Irritation – Category 1 Skin Sensitisation – Category 2
<b>SUSMP</b>	Nil
<b>ADG CODE</b>	Nil
<b>AICS</b>	All ingredients present on AICS

### SECTION 16 – OTHER INFORMATION

**This SDS contains only safety-related information. For other data see product literature**

#### Date of Last Revision

AT355 – October 2018

#### Acronyms

<b>ADG CODE</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AIC S</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>HSIS</b>	Hazardous Substances Information System
<b>IARC</b>	International Agency for Research on Cancer
<b>NOHSC</b>	National Occupation Health and Safety Commission
<b>NTP</b>	National Toxicology Program (USA)
<b>STEL</b>	Short term exposure limit
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>TWA</b>	Time weighted average
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (Feb 2016)

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END OF SDS