

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **NeemAQ**

Item Code:

Product Use: NeemAQ® is a Commercial Horticultural Insecticide containing active ingredients in the liminoid class extracted from seed kernels of the Neem tree (*Azadirachta indica*). It is used as an Insect Growth Regulator (IGR) in the control of certain insect pests of horticultural crops.

Restriction of Use: Refer to Section 15

New Zealand Supplier: Horticulture Ltd
Address: 10 Firth Street
Drury, 2113

Telephone: +64 9 294 8453
Fax Number: +64 9 294 7272

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 25 May 2022

Section 2. Hazards Identification

This substance is hazardous as per EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval No: HSR100740

Pictograms



Signal Word: **DANGER**

| GHS Classification and Category | Hazard Code | Hazard Statement |
|---|-------------|--|
| Flammable Liquids Cat. 3 | H226 | Flammable liquid and vapour. |
| Reproductive toxicity Cat. 2 | H361 | Suspected of damaging fertility or the unborn child. |
| Serious eye damage Cat. 1 | H318 | Causes serious eye damage. |
| Hazardous to the aquatic environment chronic Cat. 2 | H411 | Toxic to aquatic life with long lasting effects. |

Prevention Code | Prevention Statement

Product Name: Neem AQ
Date of SDS: 25 May 2022

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

| | |
|------|---|
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat, sparks, open flames or hot surfaces. No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground bond container and receiving equipment. |
| P241 | Use explosion-proof electrical, ventilating and lighting. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective clothing as detailed in Section 8. |
| P281 | Use personal protective equipment as required. |

| Response Code | Response Statement |
|------------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P391 | Collect spillage. |
| P303 + P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P305 + P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |
| P370 + P378 | In case of fire: Use water spray, CO2, foam, or dry powder |

| Storage Code | Storage Statement |
|--------------|--|
| P405 | Store locked up. |
| P403 + P235 | Store in a well-ventilated place. Keep cool. |

| Disposal Code | Disposal Statement |
|---------------|--|
| P501 | Dispose of according to Local Regulations or Authorities |

Section 3. Composition / Information on Ingredients

| Ingredients | Wt% | CAS NUMBER. |
|---|-----|-------------|
| Neem Seed Kernel Extract (NSKE) containing Azadirachtin isomers and related liminoids and their derivatives | 7.5 | Proprietary |
| Ethyl Alcohol | 20 | 64-17-5 |

Section 4. First Aid Measures

Routes of Exposure:

- If in Eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

- If on Skin After contact with skin, take off immediately all contaminated clothing, and wash before reuse. Wash skin with plenty of water. Seek medical advice if needed.

- If Swallowed If swallowed, rinse mouth with water (only if the person is conscious). Drink plenty of water. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if needed.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Skin: Not applicable.
Eyes: Causes severe eye damage.
Swallowed: Not applicable.
Inhaled: Not applicable.
Chronic: Suspected of damaging fertility or the unborn child.

Section 5. Fire Fighting Measures

| | |
|---|---|
| Hazard Type | Flammable Liquid or vapour. |
| Hazards from products | None known. |
| Suitable Extinguishing media | Use Use water spray, CO2, foam, or dry powder |
| Precautions for firefighters and special protective clothing | Wear full protective gear. |
| HAZCHEM CODE | 2Y |

Section 6. Accidental Release Measures

Provide adequate ventilation. Wear suitable protective clothing as detailed in Section 8. Evacuate unnecessary personnel.

Do not allow to enter sewers / surface or ground water. If the product leaks into water or sewage system, inform appropriate authorities.

Clean up any spills as soon as possible, using an absorbent material (sand, earth or sawdust). Put in clearly labeled suitable disposal containers for disposal. Dispose of in accordance with local regulations as per Section 13.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Keep container tightly closed.
- Ground bond container and receiving equipment.
- Use explosion-proof electrical, ventilating and lighting.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

Precautions for Storage:

- Store locked up.
- Keep out of reach of children.
- Store in a well ventilated area. Keep cool.

- Store sealed in dry, dark conditions out of direct sunlight and away from sources of ignition.
- Do not store diluted NeemaQ.
- Do not mix with other materials.
- Store away from incompatible materials listed in Section 10.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA | | STEL | |
|-----------------------------------|------|-------------------|------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Ethanol (Ethyl alcohol) [64-17-5] | 1000 | 1880 | - | - |

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

Engineering Controls

Ensure adequate ventilation.

Personal Protection Equipment



| | |
|-----------------------|---|
| Eyes | Wear eye protection/face protection. Chemical goggles or safety glasses. |
| Hands and Skin | Wear protective gloves. For outside use normal clothing. |
| Respiratory | Respirator recommended during measuring and mixing and if applicator is in close proximity to the spray material during application eg, greenhouse. |
| General | Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of work. Avoid all unnecessary exposure. Do not get in eyes, on skin, or on clothing. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use. Have eyewash showers available. |

Section 9 Physical and Chemical Properties

| | |
|---|--------------------------|
| Appearance | Liquid |
| Colour | Dark brown or black |
| Odour | Alcoholic, coffee, spice |
| Odour Threshold | Not available |
| pH | 4.5 +/- 0.1 |
| Boiling Point | Not available |
| Melting Point | Not available |
| Freezing Point | Not available |
| Flash Point | 45 ⁰ C |
| Flammability | Flammable |
| Upper and Lower Explosive Limits | Not available |
| Vapour Pressure | Not available |
| Vapour Density | Not available |

| | |
|----------------------------------|----------------|
| Specific Gravity | 980 to 990 g/L |
| Solubilities | Soluble |
| Partition Coefficient: | Not available |
| Auto-ignition Temperature | Not available |
| Dynamic Viscosity | Not available |
| Particle Size | Not available |

Section 10. Stability and Reactivity

| | |
|---|---|
| Stability of Substance | Under normal storage conditions NeemAQ® is stable for a period of 2 years from the date of manufacture. NeemAQ® characteristics do not change during this period. |
| Reacts with | NeemAQ® may react with alkaline materials, or organic solvents, resulting in combination products of more neutral pH and unknown qualities. |
| Conditions to Avoid | Sources of ignition or high temperatures. |
| Incompatible Materials | Strong oxidizing agents, flammable gases, solids. |
| Hazardous Decomposition Products | No data available. |

Section 11 Toxicological Information

Acute Effects:

| | |
|-------------------|-----------------------------------|
| Swallowed | Not applicable. LD50 = >2000mg/kg |
| Dermal | Not applicable. LD50 = >2000mg/kg |
| Inhalation | Not applicable. |
| Eye | Causes severe eye damage. |
| Skin | Not applicable. |

Chronic Effects:

| | |
|-------------------------------|--|
| Carcinogenicity | Not applicable. |
| Reproductive Toxicity | Suspected of damaging fertility or the unborn child. |
| Germ Cell Mutagenicity | Not applicable. |
| Aspiration | Not applicable. |
| STOT/SE | Not applicable. |
| STOT/RE | Not applicable. |

Section 12. Ecotoxicological Information

Toxic to aquatic life with long lasting effects.

| | |
|--------------------------------------|---|
| Persistence and degradability | NeemAQ rapidly decomposes after dilution. |
| Bioaccumulation | No data available. |
| Mobility in Soil | No data available. |
| Other adverse effects | Active ingredients deteriorate under conditions of high pH, UV light and temperatures above 50°C. |

Toxicity Data:

Fish: 96hr LC50 for rainbow trout approximately 1230 mg/l.

Section 13. Disposal Considerations

Disposal Method: Triple rinse and dispose of according to local Regulations. Treat rinsate as an ecotoxic substance and dispose of accordingly

Precautions and methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012



Road, Rail, Sea and Air Transport

| | |
|-----------------------------|---|
| UN No | 1170 |
| Class - Primary | 3 |
| Packing Group | III |
| Proper Shipping Name | ETHANOL SOULTION |
| Marine Pollutant | YES |
| Special Provisions | If the product's individual container is below 5L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG. |

Section 15 Regulatory Information

EPA Approval Code: HSR100740

| HSW (HS) Regulations 2017 and EPA Notices | Trigger Quantity |
|---|-------------------------------------|
| Certified Handler | Not required |
| Location Certificate | 500L(>5L), 1500L (<5L), 250L (Open) |
| Tracking | Not required |
| Signage Trigger Quantities | 1000L |
| Emergency Response Plan | 1000L |
| Secondary Containment | 1000L |
| Restriction of Use | Only use for the intended purpose. |

Section 16 Other Information

Glossary

| | |
|------------------|---|
| Cat | Category |
| EC ₅₀ | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| LC ₅₀ | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD ₅₀ | Lethal dose to kill 50% of test animals/organisms. |
| LEL | Lower explosive level. |
| OSHA | American Occupational Safety and Health Administration. |
| TEL | Tolerable Exposure Limit. |
| TLV | Threshold Limit Value-an exposure limit set by responsible authority. |
| UEL | Upper Explosive Level |
| WES | Workplace Exposure Limit |

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017

2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand distributor, if further information is required.

Issue Date: 25 May 2022 Review Date: 25 May 2027