

# SAFETY DATA SHEET

According to  
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

## Section 1. Identification of the material and the supplier

Product: **Optimite**  
 Product Use: Insecticide  
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Adria Crop Protection Solutions**  
 Address: 407 State Highway 16  
 Kumeu 0841,  
 Auckland

Telephone: +64 9 412 9817  
 Fax: +64 9 412 9807  
 Website: www.adria.nz

**Emergency No:** **0800 734 607 (24hr)3**  
**0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 21 March 2023 v2

## Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

**EPA Approval No: HSR101161**

### Pictograms



Signal Word: **Warning**

| GHS Classification and Category                           | Hazard Code | Hazard Statement   |
|---|-------------|--|
| Eye irritation Cat. 2                                     | H319        | Causes serious eye irritation.                                     |
| Skin sensitisation Cat. 1                                 | H317        | May cause an allergic skin reaction.                               |
| Specific target organ toxicity – repeated exposure Cat. 2 | H373        | May cause damage to organs through prolonged or repeated exposure. |
| Hazardous to the aquatic environment acute Cat. 1         | H400        | Very toxic to aquatic life.  |
| Hazardous to the aquatic environment chronic Cat. 1       | H410        | Very toxic to aquatic life with long lasting effects.              |

| Prevention Code | Prevention Statement                        |
|-----------------|---|
| P102            | Keep out of reach of children.              |
| P103            | Read carefully and follow all instructions. |
| P260            | Do not breathe fumes, vapours or spray.     |
| P264            | Wash hands thoroughly after handling.       |

|      |  |
|------|--|
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P273 | Avoid release to the environment.                                      |
| P280 | Wear protective clothing as detailed in Section 8.                     |

| Response code    | Response Statement   |
|------------------|--|
| P101             | If medical advice is needed, have product container or label at hand.  |
| P314             | Get medical advice/attention if you feel unwell.   |
| P363             | Wash contaminated clothing before reuse.   |
| P391             | Collect spillage.  |
| P302 + P352      | IF ON SKIN: Wash with plenty of soap and water.  |
| P305 + P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333 + P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P337 + P313      | If eye irritation persists: Get medical advice/attention.  |

| Storage Code   | Storage Statement |
|----------------|-------------------|
| None allocated |                   |

| Disposal Code | Disposal Statement   |
|---------------|----------------------|
| P501          | Refer to Section 13. |

### Section 3. Composition / Information on Hazardous Ingredients

| Ingredients   | Content (%w/v) | CAS NUMBER. |
|---------------|----------------|-------------|
| Spiromesifen  | 24             | 283594-90-1 |
| Non-hazardous | To bal         |             |

### 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. If eye irritation persists: Get medical advice/attention.  |
| If on Skin   | Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.  |
| If Swallowed | If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or a doctor immediately.  |
| 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. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult. |

#### Most important symptoms and effects, both acute and delayed

Symptoms:

|                    |   |
|--------------------|---|
| <b>Ingestion:</b>  | Not applicable.   |
| <b>Inhalation:</b> | Not applicable.   |
| <b>Skin:</b>       | May cause an allergic skin reaction.                                |
| <b>Eye:</b>        | Causes serious eye irritation.                                      |
| <b>Chronic:</b>    | May causes damage to organs through repeated or prolonged exposure. |

**Treatment:** Treatment: Treat according to symptoms (decontamination, vital functions). No known specific antidote.

## Section 5. Fire Fighting Measures

|   |  |
|---|--|
| <b>Hazard Type</b>  | This product is not flammable.                   |
| <b>Hazards from combustion products</b>                                   | Carbon and nitrogen oxides.                      |
| <b>Suitable Extinguishing media</b>                                       | Dry chemical, water spray, foam, carbon dioxide. |
| <b>Recommended protective clothing &amp; Precautions for firefighters</b> | Wear SCBA and chemical-protective clothing.      |
| <b>HAZCHEM CODE</b>   | <b>3Z</b>  |

## Section 6. Accidental Release Measures

### Personal precautions:

Use protective clothing as per Section 8. Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately.

### Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

### Spill and Disposal procedures:

Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely, according to Local Council regulations.

## Section 7. Handling and Storage

### Precautions for Handling:

- Keep out of reach of children.
- Read carefully and follow all instructions.
- Do not breathe fumes, vapours or spray.
- Wash hands thoroughly after handling.
- Ventilation required.
- Keep away from heat sources and direct sunlight.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.

### Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep away from heat and protect from sunlight.
- Protect against freezing.

## Section 8 Exposure Controls / Personal Protection

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA                   | STEL                  |
|-----------|-----------------------|-----------------------|
|           | ppm mg/m <sup>3</sup> | ppm mg/m <sup>3</sup> |

No ingredients have exposure limits

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 / Industrial Hygiene

Ensure there is adequate ventilation.

## Personal Protection Equipment



|                    |  |
|--------------------|--|
| <b>Eyes</b>        | Safety goggles with side-shields.  |
| <b>Hands</b>       | Wear suitable gloves resistant to chemical penetration e.g. nitrile rubber gloves with a minimum thickness of 0.4 mm.                          |
| <b>Skin</b>        | Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.                                  |
| <b>Respiratory</b> | Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles.               |
| <b>General</b>     | Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use. Wash hands and face before breaks and after work. |

### Section 9 Physical and Chemical Properties

|   |                        |
|---|------------------------|
| <b>Appearance</b>                       | Suspension Concentrate |
| <b>Colour</b>                           | Off white to cream     |
| <b>Odour</b>                            | Characteristic         |
| <b>Odour Threshold</b>                  | Not available          |
| <b>pH</b>                               | 6.0 – 8.0              |
| <b>Boiling Point</b>                    | Not available          |
| <b>Melting Point</b>                    | Not available          |
| <b>Freezing Point</b>                   | Not available          |
| <b>Flash Point</b>                      | >93.4°C                |
| <b>Flammability</b>                     | Not available          |
| <b>Upper and Lower Explosive Limits</b> | Not available          |
| <b>Vapour Pressure</b>                  | Not available          |
| <b>Vapour Density</b>                   | Not available          |
| <b>Density</b>                          | 1.07                   |
| <b>Water Solubility</b>                 | Not available          |
| <b>Partition Coefficient:</b>           | Not available          |
| <b>Ignition Temperature</b>             | Not available          |
| <b>Decomposition Temperature</b>        | Not available          |
| <b>Viscosity</b>                        | Not available          |
| <b>Particle Characteristics</b>         | Not available          |

### Section 10. Stability and Reactivity

|   |   |
|---|---|
| <b>Stability of Substance</b>             | This product is stable under normal conditions. |
| <b>Possibility of hazardous reactions</b> | None known.                                     |
| <b>Conditions to Avoid</b>                | Temperature extremes.                           |
| <b>Incompatible Materials</b>             | Oxidising agents, acids and alkali.             |
| <b>Hazardous Decomposition Products</b>   | Carbon and nitrogen oxides.                     |

### Section 11 Toxicological Information

#### Acute Effects:

|                   |                                      |
|-------------------|--------------------------------------|
| <b>Swallowed</b>  | Not applicable.                      |
| <b>Dermal</b>     | Not applicable.                      |
| <b>Inhalation</b> | Not applicable.                      |
| <b>Eye</b>        | Causes serious eye irritation.       |
| <b>Skin</b>       | May cause an allergic skin reaction. |

**Chronic Effects:**

|                               |  |
|-------------------------------|--|
| <b>Carcinogenicity</b>        | Not applicable.  |
| <b>Reproductive Toxicity</b>  | Not applicable.  |
| <b>Germ Cell Mutagenicity</b> | Not applicable.  |
| <b>Aspiration</b>             | Not applicable.  |
| <b>STOT/SE</b>                | Not applicable.  |
| <b>STOT/RE</b>                | May cause damage to organs through prolonged or repeated exposure. |

**Acute Toxicity -**

| <b>Chemical Name</b>          | <b>LD50 (Oral)</b> | <b>LD50 (Dermal)</b> | <b>LC50 (inhalation)</b>                  |
|-------------------------------|--------------------|----------------------|---|
| Spiromesifen<br>(283594-90-1) | >2500mg/kg         | >2000mg/kg           | (4 h) for rats >4873<br>mg/m <sup>3</sup> |

**Section 12. Ecotoxicological Information**

|                                       |   |
|---------------------------------------|---|
| <b>Ecological effects information</b> | Very toxic to aquatic life with long lasting effects.                   |
| <b>Persistence and degradability</b>  | No data available   |
| <b>Bioaccumulation</b>                | No data available   |
| <b>Mobility in Soil</b>               | No data available   |
| <b>Other adverse effects</b>          | No data available   |
| <b>Acute fish toxicity:</b>           | LC50 (96 h) for rainbow trout 0.016 mg/L, bluegill sunfish >0.034 mg/L  |
| <b>Toxicity for daphnia:</b>          | EC50 (48 h) >0.092 mg/L   |
| <b>Toxicity to algae:</b>             | For Pseudokirchneriella subcapitata, EbC50 and ErC50 (96 h) >0.094 mg/L |
| <b>Precautions:</b>                   | Do not allow to enter waterways.  |

**Section 13. Disposal Considerations****Disposal Method:**

Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal.

**Empty container precautions:**

Avoid contamination of any water supply with chemical or empty container.

**Precautions or 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 5433:2020**

**Road, Rail, Sea and Air Transport**

|                        |      |
|------------------------|------|
| <b>UN No</b>           | 3082 |
| <b>Class - Primary</b> | 9    |
| <b>Packing Group</b>   | III  |

|  |  |
|--|--|
| <b>Proper Shipping Name</b>                  | <b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SPIROMESIFEN SOLUTION)</b>   |
| <b>Marine Pollutant</b>                      | Yes  |
| <b>Special Provisions-Limited Quantities</b> | If the product's individual container is below 5L/kg, 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. |

|                   |                               |
|-------------------|-------------------------------|
| <b>Section 15</b> | <b>Regulatory Information</b> |
|-------------------|-------------------------------|

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: HSR101161

| <b>HSW (HS) Regulations 2017</b>        | <b>Trigger Quantity</b>   |
|---|---|
| Certified Handlers                      | Not required  |
| Location Certificate                    | Not required  |
| Signage Trigger Quantities (Schedule 3) | 100L  |
| Emergency Response Plan (Schedule 5)    | 100L  |
| Secondary Containment (Schedule 5)      | 100L  |
| Tracking (Schedule 26)                  | Not required  |
| For all further controls                | Refer to EPA <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for controls document - HSR101161 |

| <b>HSNO Additional Controls (Restrictions of use)</b> |  |
|---|--|
| 77A   | <p>a). The maximum application rate of this substance is 144 g of a.i./ha<br/>The maximum application frequency of this substance must not be more than two times per crop cycle per calendar year.</p> <p>b). The following limits are set for toxicologically relevant impurities in the active ingredient spiromesifen used to manufacture this substance:<br/>N,N-dimethylacetamide: 4 g/kg maximum.</p> <p>c). This substance must not be applied into or onto water<br/>Water means water in all its physical forms, whether flowing or not, and whether over or under ground, but does not include water in any form while in a pipe, tank or cistern or water used in the dilution of the substance prior to application.</p> <p>d). The following information (or words to this effect) shall appear on the product label:<br/>Harmful to some beneficial insects – particularly some foliage dwelling predators which may be used in Integrated Pest Management. -The maximum application rate of this substance is 144 g of a.i./ha (equivalent to 600 g of substance/ha). -The maximum application frequency of this substance must not be more than two times per crop cycle per calendar year. -This substance must not be applied into or onto water.</p> |

|  |  |
|--|--|
|  | e). This substance must be applied by ground-based methods only<br>Ground-based methods of applying pesticides include, but are not limited to, application by ground boom, airblast or knapsack, and do not include aerial application methods. |
| <b>ACVM Act and Regulations</b>  |  |
| ACVM Approval No<br>See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration controls | P9328  |

## Section 16 Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label. The data contained in this safety data sheet is based on our current knowledge and describes the product only with regard to safety requirements. The data does not describe the products properties. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any existing laws and legislation are observed.

### Glossary

|                  |   |
|------------------|---|
| EC <sub>50</sub> | Median effective concentration.   |
| EEL              | Environmental Exposure Limit.   |
| EPA              | Environmental Protection Authority  |
| HSNO             | Hazardous Substances and New Organisms.   |
| HSW              | Health and Safety at Work.  |
| LC <sub>50</sub> | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD <sub>50</sub> | 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 5433:2020
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

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Please contact Adria, if further information is required.

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