



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **BALLISTIC 27.5 EC INSECTICIDE**
Chemical name of active: Deltamethrin C₂₂H₁₉Br₂NO₃
Product Use: Insecticide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, Nelson 7011

Telephone: +64 3 543 8275
Fax Number: +64 3 543 8274

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 18 July 2018

Section 2. Hazards Identification

This substance is hazardous according to the Hazardous Substances (Classification) Notice 2017

EPA Approval No: HSR002440

Pictograms



Toxic Chronic Ecotoxic

Signal Word: **Warning**

| HSNO Classification | Hazard Code | Hazard Statement | GHS Category |
|---------------------|-------------|--|-----------------|
| 3.1D | H227 | Combustible liquid. | Flam. Liq. 4 |
| 6.1D (oral) | H302 | Harmful if swallowed. | Acute Tox. 4 |
| 6.3B | H316 | Causes mild skin irritation. | Skin Irrit. 3 |
| 6.9B | H373 | May cause damage to organs through prolonged or repeated exposure. | STOT RE 2 |
| 9.1A | H400 | Very toxic to aquatic life. | Aquatic Acute 1 |
| 9.3C | H433 | Harmful to terrestrial vertebrates. | |
| 9.4A | H441 | Very toxic to terrestrial invertebrates. | |

| Prevention Code | Prevention Statement |
|-----------------|--------------------------------|
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |

| | |
|------|---|
| P210 | Keep away from heat, sparks, open flames or hot surfaces. No smoking. |
| P260 | Do not breathe fumes, mist, vapours or spray. |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| 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. |
| P391 | Collect spillage. |
| P301 + P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P370 + P378 | In case of fire: Use dry chemical, water spray, foam or carbon dioxide for extinction. |

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

| Disposal Code | Disposal Statement |
|---------------|--|
| P501 | Triple rinse empty container and add rinsate to spray tank. Do not burn empty containers that have not been rinsed. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. |

Section 3. Composition / Information on Ingredients

| Ingredients | Weight % | CAS NUMBER. |
|-----------------------|----------|-------------|
| Deltamethrin (ISO) | 2.73 | 52918-63-5 |
| Aromatic C-10 solvent | 73 | 64742-94-5 |
| Alkylpolyglycolether | 13 | Proprietary |
| Alkylaryl sulfonates | 2 | Proprietary |

Section 4. First Aid Measures

Routes of Exposure:

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|--------------|--|
| If in Eyes | Rinse cautiously with water for several minutes. Call a POISON CENTER or doctor/physician if required. |
| If on Skin | Take off contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. |
| If Swallowed | Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention and show label where possible. |
| 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 of:

| | |
|--------------------|------------------------------|
| Ingestion: | Harmful if swallowed. |
| Skin: | Causes mild skin irritation. |
| Inhalation: | Not applicable. |
| Eyes: | Redness, tears. |

Chronic: May cause damage to organs through prolonged or repeated exposure.

Notes to physician: No specific antidote known. Treat symptomatically and give support therapy. If ingested perform gastric lavage and administer activated charcoal.

Section 5. Fire Fighting Measures

| | |
|---|--|
| Hazard Type | Combustible Liquid |
| Hazards from combustion products | Thermal decomposition generates: carbon monoxide, carbon dioxide, nitrogen oxides, bromides, hydrogen bromide. |
| Suitable Extinguishing media | In case of fire use: water spray, water fog, foam. |
| Precautions for firefighters and special protective clothing | Wear proper protective equipment. Self-contained breathing apparatus, rubber boots and thick rubber gloves. Move containers away from fire without risk. Dike fire control water for later disposal, cool exposed containers with water spray. |
| HAZCHEM CODE | 3Z |

Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel. During cleaning activity, shut off ignition sources.

Environmental precautions

Dispose of this material and its container at hazardous or special waste collection point, in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.

Methods and material for containment and cleaning up

Minor spillage: Absorb in sand or other inert material. Use appropriate container to avoid environmental contamination.

Major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

Dispose of in an authorised waste collecting point like Agrecovery or as per Local Regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Do not breathe fumes, mist, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- 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 children.
- Store in a well-ventilated place. Keep cool.
- Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs.
- As a Class 9 Substance with Ecotoxicity Classifications, storage of Ballistic Insecticide must be carried out in such a manner as to prevent contamination of waterways. Stores containing more than 100L of Ballistic Insecticide require bunding and are subject to signage. Storage must generally be in accordance with The New Zealand Standard for the Management of Agrichemicals (NZS8409).

- Suitable Packing Materials: Multi-layer high density polyethylene extrusion blow containers. Drums with polyethylene liner.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA | | STEL | |
|-----------|-----|-------------------|------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |

None of the ingredients have workplace exposure limits listed on WES.

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.

Engineering Controls

Ventilation required.

Personal Protection Equipment



| | |
|-----------------------|--|
| Eyes | Safety goggles or face shield. Avoid wearing contact lenses. |
| Hands and Skin | Chemical resistant gloves. Wear suitable protective clothing. Chemical resistant boots. |
| Respiratory | During spraying wear suitable respiratory equipment. |
| General | Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use. |

Section 9 Physical and Chemical Properties

| | |
|--|---|
| Appearance | Yellow (clear) Liquid |
| Odour | Characteristic |
| Odour Threshold | Not applicable |
| pH | Not applicable |
| Boiling Point | Not applicable |
| Freezing/Melting Point | Deltamethrin: 98-102 °C |
| Flash Point | 65.5°C (closed cup) |
| Flammability | Combustible |
| Upper and Lower Exposure Limits | 0.08% to 6.5% Aromatic solvent (C-10) |
| Explosive properties | Naphta (vapours) may form explosive mixture with air. |
| Vapour Pressure | Not applicable |
| Density | Not applicable |
| Specific Gravity | Not applicable |
| Solubility in water | Deltamethrin: 2 ppb |
| Partition Coefficient: | Not applicable |
| Auto-ignition Temperature | Not applicable |
| Viscosity, dynamic | Not applicable |
| Particle Characteristics | Not applicable |

Section 10. Stability and Reactivity

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|---|--|
| Stability of Substance | This product is stable under normal conditions. |
| Conditions to Avoid | Protect from (sun) light open flame and sources of heat. Decomposes upon heating. |
| Incompatible Materials | Avoid contact with: strong acids, strong bases. |
| Hazardous Decomposition Products | Thermal decomposition generates: carbon monoxide, carbon dioxide, nitrogen oxides, bromides, hydrogen bromide. |

Section 11 Toxicological Information

Acute Effects:

| | |
|-------------------|---|
| Swallowed | Harmful if swallowed. LD50 (rat)= 430 mg/kg |
| Dermal | Not applicable. LD50 (rabbit) > 2,000 mg/kg |
| Inhalation | Not applicable. LC50 (rat)1.25mg/l/4h |
| Eye | Not applicable. |
| Skin | Causes mild skin irritation. |

Chronic Effects:

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

Section 12. Ecotoxicological Information

HSNO Classes: 9.1A = Very toxic to aquatic life.
9.3C = Harmful to terrestrial vertebrates.
9.4A = Very toxic to terrestrial invertebrates.

| | |
|--------------------------------------|-------------------|
| Persistence and degradability | No data available |
| Bioaccumulation | No data available |
| Mobility in Soil | No data available |
| Other adverse effects | No data available |

Common name: Deltamethrin

Ecological effects information

LD50 Birds [mg/kg] > 5000 (Mallard Duck)
Birds LC50 [mg/kg] 10000 (Bobwhite quail)
LC50 – Fish [mg/l] 0.001-0.01

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Triple rinse empty container and add rinsate to spray tank. Do not burn empty containers that have not been rinsed. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle

Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Do not allow product to enter waterways.

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



Road and Rail Transport

UN No: 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (DELTAMETHRIN)

Air Transport

UN No: 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, (DELTAMETHRIN)

Marine Transport

UN No: 3082
 Class-primary 9
 Packing Group III
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, Ma N.O.S, (DELTAMETHRIN)
 Marine Pollutant: Yes

Special Provisions:

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.

Section 15

Regulatory Information

EPA Approval Code: HSR002440

HSNO Classification: 3.1D, 6.1D(oral), 6.3B, 6.9B, 9.1A, 9.3C, 9.4A

| HSW (HS) Regulations 2017 and EPA Notices | Trigger Quantity |
|---|---|
| Certified Handler | Not required |
| Location Certificate | Not required |
| Tracking Trigger Quantities | Not required |
| Signage Trigger Quantities | 100L/kg (9.1A) |
| Emergency Response Plan | 100L/kg (9.1A) |
| Secondary Containment | 100L/kg (9.1A) |
| HSNO Additional Controls (Restrictions of use) | |
| Restrictions of Use- 77A | <ul style="list-style-type: none"> This substance must not be applied into or onto water |
| Hazardous Property Controls Notice 2017 | |
| HPC Notice Part 4 Clause 47 | Equipment for class 9 substances must be appropriate |
| HPC Notice Part 4 Clause 48 | Records of application of class 9 pesticides and plant growth regulators |
| HPC Notice Part 4 Subpart A | Site and storage controls for class 9 substances |
| HPC Notice Part 4 Subpart C | Qualifications required for application of class 9 Pesticides. |
| ACVM Act and Regulations | |

| | |
|--|---|
| Registered pursuant to the ACVM Act 1997, See www.foodsafety.govt.nz for registration conditions | No. P7509 |
| For all further controls | Refer to EPA website (www.epa.govt.nz) for controls document - HSR002440 |

Section 16 Other Information

Glossary

| | |
|------|---|
| EC50 | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| LC50 | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD50 | 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 Nov 2017 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

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

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