

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product Name: Sinbar® Herbicide
Other Names: -
Recommended Use: For selective weed control in apples, peaches, seed lucerne and peppermint
Manufacturer/Supplier: Tessenderlo Kerley, Inc.
Address: 2255 N. 44th Street, Suite 300
Phoenix, Arizona 85008 USA
Australian Distributor: AgNova Technologies Pty Ltd
ACN: 097 705 158
Address: Suite 10/857 Doncaster Road
Doncaster East Vic 3109 Australia
Telephone: (03) 9840 2333
Facsimile: (03) 9840 2555
Website: www.agnova.com.au
Contact: Managing Director
Emergency Telephone Number: 1800 033 111(24 hrs)

2. HAZARDS IDENTIFICATION

NON-HAZARDOUS SUBSTANCE – NON-DANGEROUS GOOD

Hazard Designation: Not classified as a hazardous substance according to the criteria of NOHSC
Risk Phrases: None allocated
Safety Phrases: None allocated
ADG Classification: Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail
SUSDP Classification: Not scheduled

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredients: | CAS Number: | Concentration (w/v): |
|---------------------|--------------------|-----------------------------|
| Terbacil | 5902-51-2 | 80.0% |
| Inert Ingredients | | 20.0% |

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (Phone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

- Inhalation:** Remove victim from contaminated atmosphere. If breathing is laboured, administer oxygen. If breathing has ceased, clear airway and start first aid procedures. Obtain immediate medical attention.
- Ingestion:** DO NOT INDUCE VOMITING. Give 1 or 2 glasses of water. If vomiting does occur, repeat fluid administration. If unconscious or convulsing, do not give fluids. Obtain immediate medical attention.
- Skin Contact:** In case of contact, immediately flush with plenty of water for at least 15 minutes. Remove contaminated clothing under a safety shower. Do not neutralize with chemical agents. Obtain medical attention if irritation occurs.
- Eye Contact:** In case of contact, immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of the entire area of the eye and lids. Obtain immediate medical attention.
- Medical Attention:** No specific requirements. Treat symptomatically.

5. FIRE FIGHTING MEASURES

- Suitable Extinguishing Media:** Use extinguishing media as appropriate for combustibles involved in fire.
- Extinguishing Media:** None specified
- Special Protective Equipment for Fire-Fighters:** Wear self-contained breathing apparatus and full protective gear.
- Further Information:** Flammability limits in air: LEL – 0.58 g/L. May be ignited by heat or open flame. Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

6. ACCIDENTAL RELEASE MEASURES

Small Releases: Clear area. Shut off leak if safe to do so. Do not wash small spills away. Ensure adequate ventilation. Do not discharge into drains or surface water/groundwater. Shovel material into a suitable container for disposal. If spill area is on ground near trees or other valuable plants, remove top two inches of soil after initial cleanup. Dispose as directed by the label.

Large Releases: Cordon off area of spillage and dyke area with dirt, sand or other inert material to prevent any further migration. Recover as much of usable product for application (best disposal practice). Handle remaining material as small spill above.

7. HANDLING AND STORAGE

Handling: Refer to the Directions for Use on the product label. Keep out of reach of children. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with the skin and eyes. Avoid breathing vapours, mist or dust. Wash thoroughly with soap and water after handling. Wash exposed clothing before reuse. Avoid dust generation. Keep away from heat, open flame, or ignition sources.

Storage: Store in the closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight and away from ignition sources, heat or flame. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. Protect containers from physical damage and contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Measures: TLV (ACGIH): None established.

Engineering Controls: Use adequate exhaust ventilation to prevent inhalation of product vapours, mist or dust.

Personal Protective Equipment: Work place should be equipped with shower and eye wash.
Eye Protection: When preparing spray wear face shield or goggles.
Respiratory Protection: Use respirators to avoid breathing product if ventilation is inadequate.

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance: | Off-white wettable powder |
| Odour: | Odourless |
| Bulk Density: | 336-384 kg/m ³ |
| Chemical Family: | Uracil |
| Vapour Pressure: | Not applicable |
| Vapour Density: | Not applicable |
| Boiling Point: | Not applicable |
| Melting Point: | No data available |
| Solubility: | Insoluble in water |
| Specific Gravity: | Not applicable |
| pH: | 8.5 – 9.5 at 25°C (at 20g/L H ₂ O) |
| Flash Point: | Not applicable |
| Flammability (explosive) Limits: | LEL – 0.58 g/L in air |
| Auto-Ignition Temperature: | Not applicable |
| Octane/Water Partition Coefficient: | No data available |

10. STABILITY AND REACTIVITY

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|--|---|
| Chemical Stability: | This is a stable material under normal temperature and storage conditions |
| Hazardous Polymerisation: | Will not occur |
| Conditions to Avoid: | Avoid all sources of ignition, heat or open flame. Avoid prolonged exposure to excessive temperatures |
| Incompatible Materials: | None specified |
| Hazardous Decomposition Products: | Hazardous decomposition will not occur |

11. TOXICOLOGICAL INFORMATION

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|-----------------------------------|---|
| Acute Oral Toxicity: | Acute Oral LD ₅₀ (female rat): > 500 mg/kg Acute Oral LD ₅₀ (male rat): 2784 mg/kg Slightly toxic by ingestion. |
| Acute Inhalation Toxicity: | Acute Inhalation LC ₅₀ (4 hr) (rat): 5.3 mg/L Very low toxicity |
| Acute Dermal Toxicity: | Acute Dermal LD ₅₀ (rabbit): > 5000 mg/kg Very low to slightly toxic |
| Skin Irritation: | A moderate skin irritant |
| Eye Irritation: | A moderate eye irritant |
| Other Health Effects: | Not a skin sensitizer in animal tests. Not listed as a carcinogen. |

12. ECOLOGICAL INFORMATION**Ecotoxicity Effects**

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|---|---|
| Fish Toxicity: | LC ₅₀ (96 hrs) rainbow trout 54-79 ppm LC ₅₀ (96 hrs) bluegill sunfish 112 ppm |
| Daphnia Toxicity: | Not available |
| Bird Toxicity: | Terbacil: LD ₅₀ (bobwhite quail): > 2250 mg/kg LD ₅₀ (mallard duck): > 5000 mg/kg |
| Bee Toxicity: | Not available |
| Environmental Fate, Persistence and Degradation: | Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters. Terbacil has properties that may result in surface water contamination via dissolved runoff and runoff erosion. |

13. DISPOSAL CONSIDERATIONS

KEEP OUT OF REACH OF CHILDREN. Store in the closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilizers. DO NOT re-use container. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Break, crush, puncture or bury empty containers in a local authority landfill. If not available bury the container below 500 mm in a disposal pit specifically marked

and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

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|-------------------------------|----------------|
| UN Number: | None allocated |
| Proper Shipping Name: | None allocated |
| Dangerous Goods Class: | None allocated |
| Packing Group: | None allocated |
| EPG: | None allocated |
| HAZCHEM Code: | None allocated |

15. REGULATORY INFORMATION

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| SUSDP: | Not scheduled |
| APVMA: | Registered according to the Agricultural and Veterinary Chemicals Act 1988. APVMA Product Number: 45853 |

16. OTHER INFORMATION

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|-----------------------------|---|
| Edition: | Initial version |
| Revision Due: | 15 June 2015 |
| Reason for Revision: | - |
| Data Sources: | Manufacturer product safety data and published data |
| Glossary: | |

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|--------------|---|
| APVMA | Australian Pesticides and Veterinary Medicines Authority |
| CAS | Chemical Abstract Services Number, used to uniquely identify chemical compounds |
| NOHSC | National Occupational Health and Safety Commission |
| PPE | Personal Protective Equipment |
| SUSDP | Standard for the Uniform Scheduling of Drugs and Poisons |

This MSDS 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 should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

The opinions expressed herein are those of qualified experts with the manufacturer. Since the use of this information and of these opinions and the conditions of use of this product are not within the control of AgNova Technologies Pty Ltd, it is the user's obligation to determine the conditions of safe use of the product.

END OF MSDS