1. IDENTIFICATION

**Product Identifier:** Tribunil® Selective Herbicide

**Other Means of Identification:** None

**Recommended Use of the Chemical and Restrictions on Use:** Selective Herbicide

**Details of Manufacturer or Importer:**
- AgNova Technologies Pty Ltd
  - Suite 3/935 Station Street
  - Box Hill North Vic 3129 Australia
  - (03) 9899 8100
  - www.agnova.com.au

**Emergency Telephone Number:** 1800 033 111 (24 hrs)

2. HAZARD(S) IDENTIFICATION

![Pictogram: Environment](image)

**GHS Hazard Class and Category:**
- Hazardous to the Aquatic Environment (Acute) - Category 1: ‘Warning’
- Hazardous to the Aquatic Environment (Chronic) - Category 1: ‘Warning’

**Hazard Statement:** H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements:**

**Prevention**
- P273 Avoid release to the environment.

**Response**
- P391 Collect spillage

**Storage**
- No statements

**Disposal**
- P501 Dispose of contents/container in accordance with local and state regulations.
ADG Classification: Not a Dangerous Good for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (Class 9 in Europe)

SUSMP Classification: Poison Schedule 5 (S5) (Standard for Uniform Scheduling of Medicines and Poisons)

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number:</th>
<th>Concentration (w/v):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methabenzthiazuron</td>
<td>18691-97-9</td>
<td>70%</td>
</tr>
<tr>
<td>Other ingredients (non hazardous)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 Safety Data Sheet to a doctor.

Description of Necessary First Aid Measures:

Ingestion: Wash out mouth with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice as above.

Inhalation: Remove to fresh air and keep at rest. Obtain medical advice.

Skin contact: Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid if at all worried.

Eye contact: Rinse eyes immediately with clean water for 15 minutes and obtain medical aid.

First Aid Facilities: Ensure eyewash and shower facilities are available.

Symptoms Caused by Exposure, Both Acute and Delayed: Not available.

Medical Attention and Special Treatment: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, foam, dry agent carbon dioxide, sand.

Specific Hazards Arising from the Chemical: In a fire, formation of hydrogen cyanide, carbon monoxide, sulphur dioxide and nitrogen oxides can be expected.

Special Protective Equipment and Precautions for Fire Fighters: This product is sensitive to dust explosion. Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Avoid contact with spilled material or contaminated surfaces. Extinguish possible sources of ignition. Do not smoke, eat or drink during the clean up process. Wear protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away.

Environmental Precautions: Prevent spilled material from entering drains or watercourses. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

Methods and Materials for Containment and Cleaning Up: Avoid creation of dust, damping down if necessary. Sweep up and collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place in the drum. Seal drums label ready for safe disposal. Deal with all spillages immediately. Observe government regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Keep out of reach of children. Do not allow water soluble bags to be splashed with water or handle with wet gloves.
Conditions for Safe Storage, including any Incompatibilities:

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Store product under dry conditions. Keep from contact with fertilisers, insecticides, fungicides and seeds. This product may cause dust explosion, if water soluble bag is broken. Fine dust particles can form explosive mixtures with air.

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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Control Measures:
The National Occupational Health and Safety Commission (NOHSC) exposure standards:
- TWA for kaolin is 10 mg/m$^3$ (as inspirable dust)
- STEL for silica, quartz is 0.2 mg/m$^3$

Definitions:
- Exposure standard- Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for five-day working week.
- Exposure standard – Short Term Exposure limit (STEL) means a 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

Biological Monitoring:
No data available

Control Banding:
No data available

Engineering Controls:
Control process conditions to avoid contact. Use in a well-ventilated area only.

Individual Protection Measures, for example, Personal Protective Equipment (PPE):
- Eyes: Safety goggles if exposure is possible.
- Clothing: Suitable work clothes to avoid skin contact with the product.
- Gloves: Elbow-length PVC gloves if exposure to the product is likely.
- Respiratory: Wear a respirator if inhalation is possible.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Beige powder</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight characteristic</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>$5.9 \times 10^{-6} \text{ Pa at } 20^\circ \text{C (Methabenzthiazuron)}$</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Dispersible in water</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>$340/292 \text{ mL/100 g (loose/packed)}$</td>
</tr>
<tr>
<td>pH</td>
<td>$9.0 – 10.5 \text{ (1% in water)}$</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (explosive) Limits:</td>
<td>Not available. May cause dust explosion.</td>
</tr>
<tr>
<td>Auto-Ignition Temperature:</td>
<td>Not available</td>
</tr>
<tr>
<td>Formulation</td>
<td>Wettable powder</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal storage conditions.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions:</td>
<td>Not available</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Moisture, heat.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Strong acids and alkalis, strong oxidising agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products:</td>
<td>In a fire, formation of hydrogen cyanide, carbon monoxide, sulphur dioxide and nitrogen oxides can be expected.</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>$\text{LD}_{50} \text{ Oral Rat } = &gt;2500 \text{ mg/kg (derived from active ingredient data)}$</td>
</tr>
</tbody>
</table>
Dermal Toxicity: LD₅₀ Dermal (skin contact) Rat >5000 mg/kg (test results of a similar product)

Inhalation Toxicity: LC₅₀ (4 hr inhalation) Rat 5.12 mg/L air (dust)

Skin Corrosion/Irritation: Non irritating (rabbit) (test results of a similar product)

Serious Eye Damage/Irritation: May irritate the eyes.

Respiratory or Skin Sensitisation: No data available

Germ Cell Mutagenicity: No data available

Carcinogenicity: Methabenzthiazuron is not listed by the National Toxicology Program of the International Agency for Research on Cancer as a carcinogen.

Reproductive Toxicity: Tests with Methabenzthiazuron showed it was not teratogenic and did not affect reproduction.

Specific Target Organ Toxicity (STOT) – Single Exposure: No data available

Specific Target Organ Toxicity (STOT) – Repeated Exposure: No data available

Aspiration Hazard: No data available
12. ECOLOGICAL INFORMATION

Methabenzthiazuron is toxic to aquatic organisms. It is not toxic to bees. DO NOT contaminate ponds, irrigation channels, drains, streams, rivers or waterways with the chemical or used containers.

**Technical methabenthiazuron**

**Ecotoxicity:**

**Toxicity to Fish:** Acute LC$_{50}$ 96 hr Rainbow trout (*Oncorhynchus mykiss*) = 15.9 mg/L  
Acute LC$_{50}$ Golden orfe (*Leuciscus melanotus*) = 29 mg/L

**Toxicity to Aquatic Invertebrates:** Acute LC$_{50}$ 48 hr Daphnia 30.6 mg/L

**Toxicity to Aquatic Plants:** Algae toxicity: growth rate: IC$_{50}$ (96 h) green algae (*Scenedesmus subspicatus*) 0.119 mg/L

**Toxicity to Birds:** No data available

**Toxicity to Bees:** Not toxic

**Persistence and Degradability:** Methabenzthiazuron is adsorbed strongly on soils and degrades slowly. Duration of residual activity is about 3 months. Methabenzthiazuron is unstable in strong acids and alkalis but has a DT$_{50}$ greater than 1 year at pH 4-9 at 22°C. It is stable to direct photolysis.

**Bioaccumulative Potential:** No data available

**Mobility in Soil:** No data available

13. DISPOSAL CONSIDERATIONS

**Disposal Containers and Methods:**
Single rinse foil pack before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. Puncture and bury empty container in a local authority landfill. If no landfill is available, bury the container below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product through a reputable waste contractor.
14. TRANSPORT INFORMATION

UN Number: Not applicable
Proper Shipping Name or Technical Name: Not applicable
Transport Hazard Class: Not applicable
Packing Group: Not applicable
Environmental Hazards for Transport Purposes: Not applicable
Special Precautions for User: Not applicable
EPG: Not applicable
Hazchem Code: Not applicable

15. REGULATORY INFORMATION

APVMA: Registered according to the Agricultural and Veterinary Chemicals Act 1994.
APVMA Product Number: 31780

SUSMP: Poison Schedule 5

16. OTHER INFORMATION

Trademark Information: Tribunil is a Registered Trademark of AgNova Technologies Pty Ltd

Abbreviations and Acronyms: APVMA – Australian Pesticides and Veterinary Medicines Authority
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
SUSMP – Standard for the Uniform Scheduling of Medicines and Poisons
STEL – Short-term Exposure Limit
TWA – Time Weighted Average

Date of Preparation or Issue: June 2018
Revision:
Reason for Revision: To update product name.
Revision:

Data Sources: Manufacturer product safety data and published data

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 should read this SDS 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 SDS