1. Identification

GHS Product Identifier: AMITROLE T Herbicide
Product Code: 0085
Product Type: Group Q Herbicide
Company Name: NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address: 103-105 Pipe Road Laverton North Victoria 3026 Australia
Telephone/Fax Number: Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Emergency phone number: 1800 033 498 (24hr Australia)

Recommended use of the chemical and restrictions on use
For the control of weeds in orchards, vineyards, irrigation ditches and drains, eucalyptus and pine plantations, roadsides, pre-plant wheat and barley, and for general industrial situations as per the Directions for Use table on the label.

Other Information
This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

2. Hazard Identification

GHS classification of the substance/mixture
- TR1 Toxic to Reproduction: Category 1
- RE1 STOT Repeated Exposure Category 1
- AC2 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2

Signal Word(s)
- DANGER

Hazard Statement(s)
- H361 Suspected of damaging fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure (thyroid).
- H411 Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe spray.
- P264 Wash hands and exposed skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P308+P313 IF exposed or concerned: Get medical advice/attention.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitrole (3-amino-1,2,4-triazole)</td>
<td>61-82-5</td>
<td>250 g/L</td>
</tr>
<tr>
<td>Ammonium thiocyanate</td>
<td>1762-95-4</td>
<td>220 g/L</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>Balance</td>
</tr>
</tbody>
</table>

4. First-aid measures

Other Information
Poisons Schedule S5
Classified as hazardous

5. Fire-fighting measures

Suitable extinguishing media
If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Non-combustible.

Hazards from Combustion Products
If involved in a fire, the dehydrated components may emit oxides of nitrogen and oxides of sulphur.

Special Protective Equipment for fire fighters
Breathable air apparatus may have to be worn in confined spaces.

Environmental Precautions
STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. Accidental release measures

Spills & Disposal
Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect spilled material and waste in sealable open-top type containers for disposal.
Dispose of at a landfill in accordance with local regulations.

Prevent from entering drains, waterways or sewers.

This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. Handling and storage

Conditions for safe storage, including any incompatibilities
Store in the closed, original container in a dry, well ventilated area out of direct sunlight.
Do not store in the same area as acids.
Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.

Tank Cleaning
Thoroughly flush all spray equipment with water following the use of this product and before use with other products.

Other Information
Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Olfactory exposure limit values

<table>
<thead>
<tr>
<th>Name</th>
<th>STEL</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitrole</td>
<td>mg/m3</td>
<td>ppm</td>
</tr>
<tr>
<td>(3-amino-1,2,4-triazole)</td>
<td>0.2</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls
Natural ventilation is sufficient when handling concentrate and preparing spray solution.
It is good practice to wear suitable personal protective equipment (PPE).
When opening the container and preparing the spray wear cotton overall buttons to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.
When using the prepared spray wear cotton overall buttons to the neck and...
AMITROLE T Herbicide

Hygiene Measures
- Wrist and a washable hat, elbow-length PVC gloves.
- After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
- Wash contaminated clothing before re-use.
- Wash goggles and gloves before storage and re-use.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Brown liquid.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&lt;0°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;100°C</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.12</td>
</tr>
<tr>
<td>pH</td>
<td>6.6 - 6.9</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Amitrole is not volatile</td>
</tr>
<tr>
<td>Volatile Component</td>
<td>63%</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable for water based formulation</td>
</tr>
<tr>
<td>Flammability</td>
<td>Product is not a combustible liquid - a water based solution.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>Corrosive to iron, steel, copper and brass.</td>
</tr>
<tr>
<td>Reaction with acids</td>
<td>Can liberate a very toxic gas.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Violent reactions between thiocyanates and oxidising agents are possible.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Hazardous polymerisation is not possible.</td>
</tr>
</tbody>
</table>

11. Toxicological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity - Oral</td>
<td>Acute toxicity estimate (ATE) for the product is &gt;2000 mg/kg.</td>
</tr>
<tr>
<td>LD50 rat</td>
<td>&gt;10000 mg/kg</td>
</tr>
<tr>
<td>Ingestion</td>
<td>The concentrate is harmful if swallowed.</td>
</tr>
<tr>
<td></td>
<td>Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.</td>
</tr>
<tr>
<td></td>
<td>However, swallowing of large amounts may cause injury, mainly due to ammonium thiocyanate.</td>
</tr>
<tr>
<td></td>
<td>Possible symptoms of exposure of the concentrate include: nausea, vomiting, diarrhoea, convulsions and possibly skin rashes or eruptions.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Not a likely route of exposure when handling the concentrate.</td>
</tr>
<tr>
<td></td>
<td>However, care should be taken to avoid the inhalation of excessive amounts of spray mist during field spraying, respiratory irritation may occur.</td>
</tr>
<tr>
<td></td>
<td>The concentrated product may cause slight irritation on contact.</td>
</tr>
<tr>
<td>Skin</td>
<td>Prolonged contact with the concentrate may cause irritation and cause skin eruptions.</td>
</tr>
<tr>
<td></td>
<td>Acute dermal toxicity has not been determined for this product; based on data available for its components, dermal toxicity is expected to be low.</td>
</tr>
<tr>
<td>Eye</td>
<td>The concentrate may cause irritation of the eyes.</td>
</tr>
<tr>
<td></td>
<td>Extent of potential injury is not known.</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Evidence from animal studies suggests the potential for developmental toxicity for amitrole.</td>
</tr>
<tr>
<td>Chronic Effects</td>
<td>Chronic Exposure: For Amitrole: Based on the results of animal studies, liver and thyroid effects may result. The weight of evidence is that amitrole is not carcinogenic. For Ammonium Thiocyanate: Ingestion of this substance may lead to an effect</td>
</tr>
</tbody>
</table>
**AMITROLE T Herbicide**

**Safety Data Sheet**

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**Product Name**

AMITROLE T Herbicide

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**Issue Date:** August 2016

**Issued by:** NUFARM

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**Classified as hazardous**

- **Serious eye damage/irritation:** That mimics iodism, i.e., a condition resulting from an overdose of iodine, characterised by running eyes and nose, salivation and skin eruptions. Mild eye irritant.

- **Mutagenicity:** Laboratory studies are not conclusive, some positive, some negative.

- **Skin corrosion/irritation:** The Australian Acceptable Daily Intake (ADI) for amitrole for a human is 0.0003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.025 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', December 2015).

- **Other Information:**
  - **Environmental Protection:** Half life in soil is typically 14 days. Loss from soil is principally by microbial degradation. Spray drift can cause damage, read the label for more information.
  - **Acute Toxicity - Fish:** Not toxic to fish.
  - **Acute Toxicity - Other Organisms:** Not toxic to bees. Not toxic to birds.

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**12. Ecological information**

**Persistence and degradability:** Half life in soil is typically 14 days. Loss from soil is principally by microbial degradation.

**Environmental Protection:** Spray drift can cause damage, read the label for more information.

**Acute Toxicity - Fish:** Not toxic to fish.

**Acute Toxicity - Other Organisms:** Not toxic to bees. Not toxic to birds.

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**13. Disposal considerations**

**Product Disposal:** On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®). Do not use this container for any other purpose.

**Container Disposal:**

- Triple or preferably pressure rinse inner bladder or containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point.
- If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.
- Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. Empty containers and product should not be burnt.

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**14. Transport information**

**Transport Information:** It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

**Storage and Transport:** Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

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**15. Regulatory Information**

**Regulatory Information:**

- Poisons Schedule: S5

**Packaging & Labelling:**

- **CAUTION**
  - KEEP OUT OF REACH OF CHILDREN
  - READ SAFETY DIRECTIONS BEFORE OPENING OR USING

**Other Information:**

- This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 31236.
# Safety Data Sheet

## AMITROLE T Herbicide

### Classified as hazardous

<table>
<thead>
<tr>
<th>Date of preparation or last revision of SDS</th>
<th>Reviewed 19/08/2016</th>
<th>This SDS replaces document dated May 2013.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Person/Point</td>
<td>Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>After Hours: Shift Supervisor Phone: 1800 033 498</td>
<td></td>
</tr>
<tr>
<td>Revisions Highlighted</td>
<td>The SDS was reviewed to include GHS requirements.</td>
<td></td>
</tr>
</tbody>
</table>

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