1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY:

PRODUCT NAME: LONZA ACTIVATED AMITROLE 400
MANUFACTURER: Lonza NZ Ltd
SUPPLIER NAME: Lonza NZ Ltd
SUPPLIER ADDRESS: 13-15 Hudson Rd, Bell Block, New Plymouth, New Zealand
SUPPLIER PHONE: +64 6 7559234
SUPPLIER FAX: +64 6 7551174
EMERGENCY PHONE: 0800 243 622, 0800 CHEMCALL
INTERNATIONAL EMERGENCY PHONE: +64 4 917 9888
CHEMICAL FAMILY: Triazole
USE: Non selective herbicide

2. HAZARDS IDENTIFICATION:

6.1E: Harmful - may be harmful if swallowed, inhaled or absorbed through the skin.
6.4A: Harmful - may cause eye irritation. Avoid contact with eyes.
6.8B: Harmful - may cause reproductive/development damage from repeated oral exposure.
6.9A: Toxic - may cause organ damage from repeated oral exposure at high doses.
9.1B: Toxic to fish/aquatic organisms with long lasting effects.
9.2A: Very toxic to the soil environment. [Non Selective Herbicide].
Refer to Section 15 for NZ EPA Requirements.

3. COMPOSITION / INFORMATION ON INGREDIENTS:

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>CAS NUMBER</th>
<th>CONCENTRATION %</th>
<th>HAZARD CLASSIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amitrole</td>
<td>61-82-5</td>
<td>32</td>
<td>Class 6, 9</td>
</tr>
<tr>
<td>Ammonium Sulphamate</td>
<td>7773-06-0</td>
<td>&lt; 20</td>
<td>Class 6, 9</td>
</tr>
<tr>
<td>Ammonium Thiocyanate</td>
<td>1762-95-4</td>
<td>&lt; 10</td>
<td>Class 6, 9</td>
</tr>
<tr>
<td>Water and Inerts</td>
<td>Balance</td>
<td></td>
<td>Class 6, 9</td>
</tr>
</tbody>
</table>

4. FIRST - AID MEASURES:

EYE CONTACT: Hold eyelids open and immediately flush eyes with flowing water for at least 15 minutes. Get prompt medical attention.
SKIN CONTACT: Wash with plenty of soap and flowing water for at least 15 minutes while removing contaminated clothing. Do NOT scrub skin. Wash clothing before reuse.
INHALATION: Avoid inhalation of spray or mists which are likely to be irritating. If ill-effects occur, move the victim to fresh air. If ill-effects persist, consult a doctor.
INGESTION: If swallowed, rinse mouth with water immediately. DO NOT induce vomiting. Seek medical attention.
NOTES TO DOCTOR: No specific antidote. Treat symptomatically.

5. FIRE FIGHTING MEASURES:

FLASHPOINT: Not applicable.
HAZCHEM CODE: 2X
FLAMMABLE LIMITS: Not applicable.
EXTINGUISHING MEDIA: Foam, Carbon dioxide, Dry chemical or Water spray (fog).
THERMAL DECOMPOSITION PRODUCTS: Oxides of nitrogen and carbon and hydrogen cyanide.
SPECIAL FIRE FIGHTING METHODS: Addition of water may cause excessive foaming. Vapours may be toxic. Self contained breathing apparatus required. Do not allow contaminated runoff to enter drains.
UNUSUAL FIRE OR EXPLOSION HAZARDS: None.

6. ACCIDENTAL RELEASE MEASURES:

Use appropriate protective equipment. Clear area of unnecessary personnel. Spills may be slippery and should be cleaned up immediately.
Large spill: Dike and pump as much as possible to a salvage container. Absorb the remaining liquid and any small spills with clay granules, sand or other absorbent material and sweep to a waste container. Cover the spill area with water and absorb. Minimise runoff into waterways or drains.

7. HANDLING AND STORAGE:

Harmful - Keep out of reach of children.
Store in original container, tightly closed away from food, food related materials, animal feedstuffs, seed or fertilizer.
Wear eye protection. Impervious gloves should be worn at all times. Wear other personal protective equipment appropriate to the situation when handling product. Wash protective clothing daily after work.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EXPOSURE LIMITS: No exposure limits (WES, TEL or EELs) have been specifically assigned for this product.
EYE PROTECTION: Chemical goggles or face shield where splash may occur. Avoid contact with eyes.
RESPIRATORY PROTECTION: General (mechanical) room ventilation is considered satisfactory.
PROTECTIVE CLOTHING: When handling wear waterproof gloves, overalls and boots.
VENTILATION: No appreciable vapour pressure at normal ambient temperatures.
HYGIENE PRECAUTIONS: Do not eat drink or smoke while working with this product. Remove clothing that becomes soaked or contaminated and wash before reuse. Wash hands before breaks and after work. The use of a skin barrier cream is useful to give additional skin protection.
9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE / STATE / ODOR: Straw to reddish brown solution with little odour.

BOILING POINT: >100°C. pH: 4.

DENSITY: 1.25

DECOMPOSITION TEMP: >120°C

FLASHPOINT: Not applicable.

EXPLOSION PROPERTIES: Not applicable.

SOLUBILITY: 280 g/l water.

OTHER DATA: None

OCTANOL / WATER PARTITION COEFFICIENT: Kow log P = -0.97.

10. STABILITY AND REACTIVITY:

CONDITIONS TO AVOID: None.

MATERIALS TO AVOID: Contact with strong acids.

HAZARDOUS DECOMPOSITION: Hydrogen cyanide, oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION:

ACUTE ORAL: LD50 rat >5000 mg/kg [by calculation].

ACUTE DERMAL: LD50 rat >5000 mg/kg [by calculation].

ACUTE INHALATION: May be harmful if swallowed, inhaled or absorbed through the skin. May cause eye irritation. Avoid contact with eyes. May cause reproductive/development damage from repeated oral exposure and may cause organ damage from repeated oral exposure at high doses.

12. ECOLOGICAL INFORMATION:

Aquatic Toxicity: Toxic to fish. Fish LC 50 (96 hr) for rainbow trout: 1000 mg/L

Soil Toxicity: Very toxic to the soil environment.

Terrestrial Vertebrates - Birds: Not toxic to birds.

Terrestrial Invertebrates - Bees: Not toxic to bees.

Toxic to fish/aquatic organisms with long lasting effects. Avoid contamination of any water supply with this product or empty container.

Very toxic to the soil environment. Herbicide - very toxic to some plant species (certain plants may be killed or damaged from root uptake of this product).

13. DISPOSAL CONSIDERATIONS:

Triple rinse empty container and add rinsate to the spray tank. If recycling, discard cap and deliver clean container to an Agrecovery depot. Alternatively crush and bury in an approved landfill.

Dispose of product only by using according to this label, or at an approved disposal facility.

Avoid contamination of any water supply or stream with product or empty container.

14. TRANSPORT INFORMATION:

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S (Amitrole)

UN Number: 3082

UN Hazard Class: 9

Packing Group: III

Hazchem Code: 2X

Additional Information: Do not carry more than 1 litre of this product on a passenger service vehicle.

15. REGULATORY INFORMATION:

APPROVED HANDLER: The product shall be under the personal control of an approved handler when:

a) the product is applied in a wide dispersive manner; or

b) used by a commercial contractor.

However, it may be handled by a person who is not an approved handler if:

- an approved handler is present at the facility where the substance is being handled; and
- the approved handler has provided guidance to the person in respect to the handling of the product; and
- the approved handler is available at all times to provide assistance if necessary.

Zelam Activated Amitrole shall NOT be applied onto or into water.

RECORD KEEPING: Record keeping is required if 200 mL or more is used within 24 hours in a place where:

a) public may lawfully be present; or

b) the substance is likely to enter air or water and leave the place.

The information must be kept for a minimum of three [3] years.

This product DOES NOT have Tracking Requirements.


Registered pursuant to the ACVM Act 1997. ACVM Pesticide No: P006051. See <www.nzfsa.govt.nz> for registration conditions.

16. OTHER INFORMATION:

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product’s properties.