Material Safety Data Sheet

AGRITONE 750®

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

Product Name: AGRITONE 750®
Product Code: 00066
Product Use: Selective herbicide for the control of many broadleaf weeds in established pastures, grass playing fields and lawns, and in cereals, grass seed and linseed crops.
Company Name: Nufarm NZ
Address: 6 Manu Street, Otahuhu
Auckland 2024 New Zealand
Emergency Tel.: 0800 651 911
Tel: 0-9-270 4150
Fax: 0-9-270 4159

This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Liquid

<table>
<thead>
<tr>
<th>Chemical Characterization</th>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredients</td>
<td>MCPA (present as the dimethylamine salt)</td>
<td>2039-46-5</td>
<td>750 g/L</td>
</tr>
<tr>
<td></td>
<td>Casein</td>
<td>9000-71-9</td>
<td>0-10 %</td>
</tr>
<tr>
<td></td>
<td>Water</td>
<td>to volume</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Chronic Effects: Liver and kidney damage has been noted in laboratory animals but only after excessive doses.

Inhalation: Not considered a serious hazard because MCPA (dimethylamine salt) is practically non-volatile; however, inhalation of spray mists should be avoided.

Ingestion: The concentrate is considered harmful if swallowed.

The spray solution is not considered a significant hazard due to the relatively low toxicity of the diluted product.

Skin: The concentrate may cause irritation.

Eye: The concentrate may cause severe irritation and probable damage if contact is prolonged.

Other Information: 6.1D acute toxicant, 6.9A target organ toxicant, 8.3A eye corrosive, 9.1A aquatic toxicant, 9.2A soil toxicant, 9.3B terrestrial vertebrate toxicant.

TOXICITY: Toxic - may cause liver damage from repeated oral exposure at high doses. May be harmful if swallowed, inhaled or absorbed through the skin.

CORROSIVE: Danger - this product is corrosive and may cause eye damage.

ECOTOXIC: Very toxic to aquatic organisms.

Selective herbicide - very toxic to some plant species.

Toxic to terrestrial vertebrates.

4. FIRST AID MEASURES

For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention immediately.
5. FIRE FIGHTING MEASURES

Extinguishing Media
Choose extinguishing media to suit the burning material.
Water fog, foam, carbon dioxide or dry chemical.
Specific Methods
Keep up wind. Do not allow washings to reach sewage or effluent systems.
Specific Hazards
Keep containers cool with water spray.
May emit toxic fumes of hydrogen chloride or phosgene if material is involved in fires or subjected to extreme heat. Breathable air apparatus may have to be worn if material is involved in fires in confined spaces.
Protective Equipment
Full protective clothing and self-contained breathing apparatus.
Flammability
Non flammable
Other Information
Location Certificate: Not applicable
Hazardous Atmosphere Zone: Not applicable
Number of Fire Extinguishers: Not applicable

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal
Wear protective clothing. Clear area of unprotected personnel. Contain liquid spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill.
For appropriate personal protective equipment (PPE), refer Section 8.
Personal Protection
Prevent from entering drains, waterways or sewers.
Environmental Precautions
This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. HANDLING AND STORAGE

Handling
Avoid skin and eye contact and inhalation of spray mist.
APPROVED HANDLER: This product must be under the control of an approved handler if applied in a wide dispersive manner, or used by a commercial contractor.
TRACKING: Is not required
RECORD KEEPING: Records of use as described in the NZS 8409 Management of Agrichemicals must be kept.
BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.
Keep out of reach of children.

Storage
Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals.
Stores containing 100L of AGRITONE 750 require secondary containment and are subject to signage, and more than 100L require emergency response plans.
HARMFUL * CORROSIVE * ECOTOXIC - keep out of reach of children

Packaging
Always read the label and any attached leaflet before use.
Aggregate Storage Volume Thresholds:
When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

No exposure limits have been set for this product.

WES TWA for dimethylamine = 10ppm and 18mg/m³

When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.

No special ventilation required. When working with the concentrate in confined spaces, it is recommended that forced ventilation be used to remove traces of dimethylamine vapour from the working atmosphere.

Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark brown liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>'Ammonia like' odour</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;100°C (water)</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.18g/mL</td>
</tr>
<tr>
<td>pH Value (H2O=1)</td>
<td>9 - 10</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>MCPA (DMA salt) considered practically non-volatile</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Other Information</td>
<td>(SL) Soluble concentrate</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stable under normal conditions of handling and storage.

Not known to occur.

May react violently with strong oxidising material such as chlorine. If strong alkalies such as caustic soda are added, dimethylamine vapour will be released. Dimethylamine is moderately toxic, LD50 (oral, rat) 700 mg/kg and a TLV of 10ppm (TWA). Dimethylamine vapour is heavier than air and flammable. The addition of strong acids will precipitate MCPA acid as a solid. This will reduce the efficacy of the herbicide and cause blockages of the spray equipment.

11. TOXICOLOGICAL INFORMATION

MCPA TECHNICAL:
MCPA is considered to be of moderate toxicity to man. There have been very few reported acute toxic effects on users over many years. Several deaths have been recorded, but all of these have been deliberate suicide, generally using the sodium salt.

Not considered a serious hazard because MCPA (dimethylamine salt) is practically non-volatile; however, inhalation of spray mists should be avoided.

The concentrate is considered harmful if swallowed. The spray solution is not considered a significant hazard due to the relatively low toxicity of the diluted product.

The concentrate may cause irritation.

The concentrate may cause severe irritation and probable damage if contact is prolonged.

Liver and kidney damage has been noted in laboratory animals but only after excessive doses.

Acute Over Exposure: Headache, nausea and vomiting with possible twitches and spasms in extreme cases.

LD50 (rats): 700 - 1,160mg/kg for MCPA technical
LD50 (mouse): 439mg/kg for MCPA technical
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12. ECOLOGICAL INFORMATION

Persistence / Degradability
In soil, MCPA is degraded to 4-chloro-2-methylphenol, followed by ring hydroxylation and ring opening. DT50 <7 days after initial 'lag phase'. Duration of residual activity in soil c.3-4 months, following an application rate of 3kg/ha.

Bioaccumulation
MCPA is not bioaccumulative.

Acute Toxicity - Fish
LC50 (rainbow trout, 96h): 89mg/L for MCPA DMA salt

Acute Toxicity - Daphnia
EC50 (Navicula pelliculosa, 96h) = 0.21mg/L for MCPA technical

Environmental Fate
In animals, MCPA is rapidly absorbed and excreted almost exclusively in the urine, with only a small proportion in the faeces.

13. DISPOSAL CONSIDERATIONS

Product Disposal
Dispose of product only by using according to the label, or at an approved landfill.

Container Disposal
Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

14. TRANSPORT INFORMATION

U.N. Number
3082

Proper Shipping Name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (MCPA, 75%)

Hazchem Code
2X

Packing Group
III

Other Information
Do not carry this product on a passenger service vehicle.

15. REGULATORY INFORMATION

Packaging & Labelling
HARMFUL * CORROSIVE * ECOTOXIC - keep out of reach of children
# Material Safety Data Sheet

**Infosafe No™** 3NUDD  
**Issue Date:** November 2013  
**ISSUED by:** NUFARMNZ

**Product Name:** AGRITONE 750®

## Hazard Rating Systems

| NFPA/HMIS: | 2-1-1 |

## Hazard Category

- HARMFUL * CORROSIVE * ECOTOXIC - Keep out of reach of children

## National Legislation

- Registered pursuant to the ACVM Act 1997, No. P7493
- See www.foodsafety.govt.nz for registration conditions
- Approved pursuant to the HSNO Act 1996, Approval Code HSR000381
- See www.epa.govt.nz for approval controls.

**UK Legislation**

- info@nz.nufarm.com

## 16. OTHER INFORMATION

**Contact Person/Point**

- IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
- 24Hr Tollfree Emergency No: 0800 651 911
- 24Hr Emergency No: National Poisons Centre Phone: 0800 764 766

**SDS History**

- September 2008
- 5 yearly review carried out. Various changes and updates made to document.

**Revisions Highlighted**

- HARMFUL * CORROSIVE * ECOTOXIC - Keep out of reach of children

...End Of MSDS...