Section 1: Identification of the Substance and Supplier

Product name: CUTLASS 500 HERBICIDE
Chemical name of active ingredient(s): Dicamba is a benzoic acid derivative
Supplier: ADAMA New Zealand Limited
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand
P.O.Box 1799, Nelson New Zealand.
Telephone +64 3 5438275 Fax: +64 3 5438274
Emergency Telephone: 0800 POISON (0800 764 766)

Section 2: Hazards Identification

Hazard Classifications: 6.1E, 6.3A, 6.4A, 6.9B, 9.1A, 9.2A, 93B, 9.4B

Most important hazards:

TOXICITY
Warning –
May be harmful if swallowed, inhaled or absorbed through the skin.
May cause skin and eye irritation.
Presumed to cause organ damage from repeated oral exposure at high doses.
Avoid eye and skin contact and avoid inhalation

ECOTOXICITY
Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container. Very toxic to the soil environment. Toxic to terrestrial vertebrates and to terrestrial invertebrates.

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance/preparation</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on hazardous ingredients *</td>
<td></td>
</tr>
<tr>
<td>Common name</td>
<td>CAS No.</td>
</tr>
<tr>
<td>Dicamba *</td>
<td>1918-00-9</td>
</tr>
<tr>
<td>Other non hazardous ingred.</td>
<td>Secret</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
</tbody>
</table>

* Dicamba is present as the dimethylamine salt.

- Occupational Exposure Limit(s), if available, are listed in section 8

Section 4: First-Aid Measures

First-aid measures:

Inhalation: First aid is not generally required. Remove victim to fresh air immediately. If in doubt, seek medical advice.

Ingestion: If swallowed do NOT induce vomiting. If in doubt, seek medical advice.

Skin contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt, seek medical advice.

Eye contact: No effects expected. If irritation does occur, flush contaminated eye (s) with lukewarm, gently flowing water for 5 minutes or until chemical is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.
Section 5: Fire-Fighting Measures

Extinguishing media
Suitable: Not combustible. Use extinguishing media suited to burning materials.

Hazardous thermal (de)composition products: There is no risk of explosion from this product under normal circumstances if it is involved in a fire. This product is likely to decompose only after heating to dryness, followed by further strong heating. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Protection of fire-fighters: When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus.

Section 6: Accidental Release Measures

Personal precautions: As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC.

Environmental precautions: Do not discharge into drains or the environment.

Methods for cleaning up: Absorb remainder in sand or other inert material. Avoid using sawdust or other combustible materials. Dispose of in an authorized waste collecting point.

Section 7: Handling and Storage

Handling: When mixing or applying wear appropriate protective clothing including cotton overalls buttoned to the neck and wrist, impervious, elbow-length gloves, and eye protection. Remove protective clothing and wash hands, arms and face with soap and water before meals and after work. Keep out of reach of children. Do not smoke, drink or eat while using.

Storage: Store in original, unopened container in a cool, dry place, out of direct sunlight and away from stock feed or foodstuffs.

Packaging materials
Suitable:

Section 8: Exposure Controls/Personal Protection

Engineering measures: No special ventilation requirements are normally necessary for this product

Hygiene measures: When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

Occupational Exposure Limits
Common name: Dicamba

Personal protective equipment:
Respiratory system: Respirator is recommended.
Skin and body: Wear suitable protective clothing. Chemical resistant boots.
Hands: Chemical resistant gloves.
Eyes: Safety goggles or face shield.

Section 9: Physical and Chemical Properties

Physical state: Liquid
Colour: Clear, almost colourless
Odour: Mild, characteristic odour
SAFETY DATA SHEET
CUTLASS 500 HERBICIDE

Freezing/Melting Point: Approximately 0°C
Boiling point: Approximately 100°C at 100kPa
Vapour Density: No Data
Vapour pressure: 2.37 kPa at 20°C (water vapour pressure)
Solubility in water: Completely soluble in water
Octanol/water partition coefficient: No Data
pH: No Data
Flammability: Not flammable
Explosion properties: Not Explosive
Oxidation properties: Not oxidizing
Auto ignition temp: Does not burn

Section 10: Stability and Reactivity

Stability: This product is unlikely to react or decompose under normal conditions.
Materials to avoid: This product should be kept in a cool place, preferable below 30°C. Avoid strong acids, strong bases and strong oxidizing agents.
Hazardous reactions: None
Hazardous decomposition products: This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Hydrogen chloride gas, other compounds of chlorine.
Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11. Toxicological Information

Preparation Dicamba
Acute toxicity - Oral: LD₅₀ (rats) 757 to 1707 mg/kg
LD₅₀ (mice) 1190 mg/kg
LD₅₀ (rabbits) >2000 mg/kg
LD₅₀ (guinea pigs) 566 to 3000 mg/kg
Acute toxicity - Dermal: LD₅₀ (rabbits) >2000 mg/kg
Acute toxicity – Inhalation: LC₅₀ (rat) > 200 mg/L
Skin irritation: Very irritating
Eye irritation: Very irritating
Sensitization: Skin sensitizer
Common name: Dicamba
Chronic toxicity: No toxic effects observed in rats given 25mg/kg/day for 2 years
Carcinogenicity: No signs of cancer observed in rats given 25mg/kg/day for 2 years
Mutagenicity: Not mutagenic
Reproduction toxicity: None
Other information:

Section 12: Ecological Information

Ecotoxicity:
Fish Dicamba has a low toxicity to fish
LC₅₀ (96 hours) bluegill sunfish & rainbow trout = 135 mg/L

LC₅₀ (48 hours) rainbow trout = 35 mg/L
bluegill = 40 mg/L
carp = 465 mg/L
Birds: Dicamba is practically nontoxic to birds
LC₅₀ in both mallard and bobwhite quail = >10,000 ppm

Common name: Dicamba
Mobility: Soil - Moderately persistent
Persistence/ degradability: The product is moderately persistent. Half-life time (t½): Typically 1 to 4 weeks

Breakdown in soil and ground water: Under conditions suitable for rapid metabolism, the half-life is less than 2 weeks. Metabolism by soil microorganisms is the major pathway of loss under most soil conditions. The rate of biodegradation increases with temperature and increasing soil moisture, and tends to be faster when soil is slightly acidic. When soil moisture increases above 50%, then rate of biodegradation declines. Dicamba slowly breaks down in sunlight. Volatilisation from soil surface is probably not significant, but some Volatilisation may occur from plant surface. It is stable to water and other chemicals in the soil. Dicamba does not bind to soil particles and is highly soluble in water. It is therefore highly mobile in the soil and may contaminate groundwater.
In humid areas, Dicamba will be leached from the soil in 3-12 weeks.

Breakdown in water: In water, microbial degradation is the main route of Dicamba disappearance. Photolysis may also occur. Aquatic hydrolysis, volatilization, adsorption to sediments, and bio-concentration are not expected to be significant.

Breakdown in vegetation: Dicamba is rapidly taken up by the leaves and roots of plants, and it is readily translocated to other plant parts. In some plant species, Dicamba accumulates in the tips of mature leaves. Desirable broadleaf plants such as fruit trees and tomatoes may be harmful during growth and development stages. Residues of Dicamba on treated plants can disappear through exudation from the roots into the surrounding soil, metabolism with the plant, or by loss from leaf surfaces.

Practically non toxic: birds. Low toxic: Fish. Non toxic: bees

Section 13: Disposal Considerations

Methods of disposal: Container Disposal - Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.

Section 14: Transport Information

UN Number 3082
Proper shipping name Environmentally hazardous substance, Liquid, N.O.S, (Dicamba)
DG Class 9
Packing Group III
Hazchem Code 2X
Marine Pollutant Yes
IER Guide page 47
National transport regulations: Do not carry this product on a passenger service vehicle.
Segregation: Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation. Refer: NZSS433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

Section 15: Regulatory Information

New Zealand Regulatory Information:
HSNO Classifications: 6.1E, 6.3A, 6.4A, 6.9B, 9.1A, 9.2A, 9.3B, 9.4B
NZFSA Approval: Registered pursuant to the ACVM Act 1997, No. P7416
See www.nzfsa.govt.nz/acvm for registration conditions
Approved pursuant to the HSNO Act 1996, Approval No. HSR000442
See www.ermanz.govt.nz for approval controls
**APPROVED HANDLER** - This product must be under the care of an approved handler when it is applied in a wide dispersive manner or used by a commercial contractor.

**RECORD KEEPING** - Records of use must be kept under certain circumstances – see The New Zealand Standards for Management of Agrichemicals (NZS8409) for details

---

**Section 16: Other Information**

Note: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

© registered Trade Mark of an Adama Group Company

---

**HISTORY**

Date of printing: 02/06/2014
Supersedes SDS issued 08/04/2009