



SAFETY DATA SHEET ETHOSAT[®] HERBICIDE

Section 1: Identification of the Substance and Supplier

Product name: ETHOSAT 500 SC HERBICIDE
Chemical name: Propane-1, 2-diol

Supplier: ADAMA NEW ZEALAND LIMITED
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand
P.O. Box 1799, Nelson New Zealand.

Telephone +64 3 543 8275 Fax: +64 3 543 8274

Emergency Telephone: 0800 POISON (0800 764 766)

Section 2: Hazards identification

Hazard Classifications: 9.1B, 9.2A
Most important hazards: TOXICITY
Toxic to aquatic organisms with long-lasting effects.
Avoid contamination of any water supply with product or empty container.
Very toxic to the soil environment.

Section 3. Composition/information on Ingredients

Information on hazardous ingredients *

Common name	CAS No.	%
Ethofumesate	26225-79-6	44

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

Section 4: First-Aid Measures

Swallowed: Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical assistance.

Eye: Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Seek medical assistance.

Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water. If irritation occurs seek medical advice.

Inhaled: Move affected person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Section 5: Fire-Fighting Measures

Extinguishing Media and methods: SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam.
Do not use water jet.

Recommended Protective Clothing: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Hazchem code: 2X

Hazardous thermal (de)composition products Carbon oxides (CO, CO₂) sulphur oxides (SO₂, SO₃...).



SAFETY DATA SHEET ETHOSAT® HERBICIDE

Section 6: Accidental Release Measures

Personal Precautions:	Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.
Environmental Precautions:	Washings must be prevented from entering surface water drains or waterways. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities...
Procedure for Spill:	<ol style="list-style-type: none">(1) Keep all bystanders away.(2) Wear full length clothing and PVC gloves.(3) Reposition any leaking containers so as to minimise further leakage.(4) Dam and absorb spill with an absorbent material (e.g. sand, soil, diatomaceous earth or vermiculite).(5) Shovel the absorbed spill into drums.(6) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.
Procedure for Disposal:	Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements. <ul style="list-style-type: none">• For quantities up to 50 L of product bury in a secure approved landfill site.• For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.

Section 7: Handling and Storage

Handling:	Keep out of reach of children. Do not eat, drink or smoke while using. Ensure good ventilation. 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.
Storage:	Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs. As a Class 9 Substance with Ecotoxicity Classifications, storage of Ethosat Herbicide must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed as a means of meeting the secondary containment provisions of the HSNO Emergency Management Regulations.

Section 8: Exposure Controls/Personal Protection

Industrial Hygiene:	In workplace ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here. Keep containers closed when not in use. Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Wash hands thoroughly after handling. Wash clothing before re-using.
Hygiene measures:	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.
WEL-TWA:	Propane-1, 2-diol 150 ppm (474 mg/m ³) (total, vapor and particulates), 10 mg/m ³ (particulates)

Personal protective equipment:

Respiratory system: If fumes build up, use suitable breathing mask



SAFETY DATA SHEET ETHOSAT® HERBICIDE

Skin and body: 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.

Eyes: Safety goggles or face shield.

Section 9: Physical and Chemical Properties

Physical state: Liquid
Colour: Beige
Odour: Sweet
pH value: Not available
Boiling point: 100°C
Melting Point: 70-72°C
Density (g/ml): 1,1377 (20°C)
Flash Point: Not applicable
Vapour pressure (20°C): 2,3 x 10^{e-6}hPa (Ethofumesate ISO)
Flammability: Not available
Solubility in water: 0,13 g/l (pH 5), 0,125 g/l (pH7), 0,132 g/l (pH9)
Viscosity: 772 mPas
Surface tension: 44 mN/m (21,1°C)

Section 10: Stability and Reactivity

Stability of the substance: Stable under standard conditions, when handled and stored correctly
Conditions to avoid: Protect from frost
Hazardous Decomposition Products: Carbon oxides (CO, CO₂) sulphur oxides (SO₂, SO₃...)

Section 11: Toxicological Information

Rat Oral LD₅₀ [mg/kg] >2000 (OECD 423)
Rat dermal LD₅₀ [mg/kg] >4000 (OECD 402)
Rat inhalation LC₅₀ mg/l/4h >4,29 (OECD 403)
Dermal irritation (rat): Mild irritant
Eye irritation (rat): Slightly irritant
Sensitization : Non Sensitizer
Carcinogenicity: Non carcinogenic
Mutagenicity: Not mutagenic
Reproduction toxicity: None

Section 12: Ecological Information

The following information is based on Ethofumesate

Toxic to fish: LC₅₀ 22-26,5 mg/l/96h, NOEC 9,3 – 9,7 mg/l/96h

Toxic to daphnia EC₅₀ 70,5 mg/l/48h, NOEC 20 mg/l/48h
EC₅₀ >35 mg/l/21d, NOEC 11,1 mg/l/21d

Toxic to algae Scenedusmus suspicatus EbC₅₀ 6,65 mg/l/72h, ErC₅₀ 12,42 mg/l/72h
NOEC 3,5 mg/l/72h



SAFETY DATA SHEET ETHOSAT® HERBICIDE

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, (ETHOFUMESATE)
DG Class 9
Packing Group III
Hazchem Code 2X
Marine Pollutant NO
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: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

Section 15: Regulatory Information

New Zealand Regulatory Information:

NZFSA Approval: Registered pursuant to the ACVM Act 1997, No. P8169
See www.nzfsa.govt.nz/acvm for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR000826
See www.ermanz.govt.nz for approval controls

HSNO Classifications: 9.1B, 9.2A

ECOTOXIC



APPROVED HANDLER - 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.



SAFETY DATA SHEET ETHOSAT[®] HERBICIDE

Section 16: Other Information

Note: This product is a registered agricultural chemical and must be 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: 23.07.2014