



Material Safety Data Sheet

4FARMERS 2,4 D AMINE 625 SELECTIVE HERBICIDE

ISSUED BY 4FARMERS

Issue Date: 15/08/2012

Review Date: 15/08/2017

MSDS: 62330

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

4Farmers 2,4 D AMINE 625 Selective Herbicide

PRODUCT USE

For selective control of certain weeds in agricultural crops as specified in the Directions for Use.

SUPPLIER

Company: 4Farmers Pty Ltd

Address:

1/70 MCDOWELL ST. A

WELSHPOOL, 6106

AUSTRALIA

Telephone: 08- 9356 3445

Fax: 08- 9356- 3447

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE.

NON-DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC. Dangerous Goods classification according to the Australian Dangerous Goods Code.

POISONS SCHEDULE

Poisons Schedule S6

Risk Phrase(s)

Classified as hazardous
R22 Harmful if swallowed.
R38 Irritating to skin.
R41 Risk of serious damage to eyes
R43 May cause sensitization by skin contact

Safety Phrase(s)

S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.



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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	g/kg
2,4 D (present as the Dimethylamine and Diethanolamine salts)	94*75-7	625g/lt
Other ingredients (non-hazardous)	N/A	balance

Section 4 - FIRST AID MEASURES

SWALLOWED: If product is swallowed or gets in mouth, do NOT induce vomiting; make every effort to prevent vomit from entering the lungs by carefully placement of patient. If symptoms develop, or if in doubt contact a Poisons Information Centre 131126 or a doctor. The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 1 tablespoon) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.

EYE: If in eyes, hold eyelids apart and flush the eye continuously with large amounts of water for at least 15 minutes. If symptoms develop, or if in doubt contact a Poisons Information Centre 131126 or a doctor.

SKIN: If skin or hair contact occurs, immediately remove contained clothing and wash skin and hair thoroughly. If symptoms develop, or if in doubt contact a Poisons Information Centre 131126 or a doctor.

INHALED: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop, or if in doubt contact a Poisons Information Centre 131126 or a doctor. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.



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Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Suitable extinguishing media are carbon dioxide, foam, dry chemical and water fog.

FIRE FIGHTING

If a significant quantity of this product is involved in a fire, call the fire brigade.

FIRE/EXPLOSION HAZARD

Non – Combustible. If involved in a fire, the product will not burn. May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat

FIRE INCOMPATIBILITY

NIL

HAZCHEM: None

Personal Protective Equipment

Wear safe work Australia approved self-contained breathing apparatus and full protective clothing.

Other information: STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

Section 6 - ACCIDENTAL RELEASE MEASURES

Spills

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective chemically resistant clothing including face mask, face shield, gauntlets and self-contained breathing apparatus. See above under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Stop leak if safe to do so, and contain spill.

Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Avoid using sawdust or other combustible material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.



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Section 7 - HANDLING AND STORAGE

Handling

Do not spray in high winds. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Provide adequate ventilation.

Storage

Note: Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Do not tamper with the Micro Matic valve or the security seal. Do not contaminate the Enviro drum with water or any other foreign matter. After each use of the product, please ensure the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly.

Always read the label and any attached leaflet before use. Do not use on or in situations where damage to susceptible crops or plants such as cotton, tobacco, tomatoes, flowers, vines, fruit trees or other susceptible crop plants may result from direct application or drift. Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. Care should be taken especially where capeweed, Paterson's curse and variegated thistles predominate in the pasture.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards

No exposure standards have been set for this product or the active ingredients.

Engineering Controls

Handle in well ventilated areas, generally natural ventilation is adequate.

Respiratory Protection

Do not inhale spray mist.

Personal Protective Equipment

When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. Sensitive workers should use protective clothing.

Hygiene Measures

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

Requirements Concerning Special Training

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.



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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour: Amber Liquid

Odour: Weak characteristic odour

Boiling Point: N/A

Melting Point: N/A

Volatiles: No specific data.

Vapour Pressure: N/A,

Vapour Density: N/A

Specific Gravity: 1.250

Water Solubility: Soluble in water

pH: 8 to 10

Odour Threshold: No data.

Evaporation Rate: No data.

Coeff Oil/water Distribution: no data

Autoignition temp: N/A

Flash point : Not flammable or Combustible

Flammability : Not flammable or Combustible

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

Chemical Stability

Stable under normal conditions of use.
May be unstable in conditions below 5
Deg C.

Incompatible Materials

Reaction of the concentrate or spray mix
with acids will precipitate solid 2,4-D acid
and largely de-activate the product and
cause blockages in spray equipment.
The addition of a strong alkali such as
caustic soda will cause release of
dimethylamine vapour. Dimethylamine is
moderately toxic, LD50 (oral, rat) is 700
mg/kg and a TLV of 10 ppm (TWA) has
been set.

Hazardous Decomposition Products

Oxides of carbon and nitrogen and
hydrogen chloride.

**Hazardous Polymerization
Conditions to Avoid**

Will not occur.
Excessive heat.



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Section 11 - TOXICOLOGICAL INFORMATION

Toxicology Information

Inhalation: No harmful effects are expected if the precautions on the label and this MSDS are followed. The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. The concentrate is considered harmful by inhalation by Worksafe Australia. A moderate hazard exists from inhalation of spray and care should be taken to avoid inhalation of spray mists.

Ingestion: Not a likely route of exposure. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. However, swallowing of large amounts may cause injury. Ingestion of the product in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination

Skin: Prolonged contact with the concentrate may cause irritation. Prolonged contact of the concentrate with skin will result in absorption of some 2,4-D which can be harmful.

Eye: The concentrate will cause irritation of the eyes. Prolonged contact with the concentrate may cause damage to the eye.

Chronic Effects: Chronic Overexposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.

Carcinogenicity: The weight of the evidence is that 2,4-D is not carcinogenic.

Acute Toxicity - Oral LD50 (rat) 699 mg/kg for 2,4-dichlorophenoxyacetic acid
LD50 (rat) 700 mg/kg for dimethylamine
LD50 (rat) 710 mg/kg for diethanolamine

Acute Toxicity – Dermal LD50 (rabbit) >2000 mg/kg

Acute Toxicity – Inhalation LC50 (rat) (4hr) >1.79 mg/l

Skin Irritation: Not a skin irritant.

Skin Sensitisation: Product is not a skin sensitiser.

Other Information: The Australian Acceptable Daily Intake (ADI) for 2,4-D for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 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 and Environmental Health, 'ADI List', March 2010). In trials using 2,4-D as a drug, studies on volunteers have shown that doses of between 5 and 36 mg/kg body weight do not cause any acute toxic effects. Formulated 2,4-D products can be absorbed by ingestion, inhalation (spray mist) and through the skin. Studies of users (sprayers) has shown that absorption through the skin is the most common route. When used



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with good agricultural spraying practice and good personal hygiene, absorption of 2,4-D is very low.

Section 12 - ECOLOGICAL INFORMATION

Persistence /Degradability: Half-life in soil is typically 7 days. Loss from soil is principally by microbial degradation.

Mobility: Rapid degradation in soil prevents significant downward movement under normal conditions.

Known Harmful: 2,4-D amine products do not appear to pose any threat to birds

Effects on the Environment: 2,4-D amine products do not appear to pose any threat to fish or other aquatic organisms other than in very high concentrations.

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

Acute Toxicity – Fish: Not toxic to fish. LC50 (96 hr) for (rainbow trout) is ~100 mg/l.

Acute Toxicity – Daphnia LC50 (48hr) for 2,4-D amines is 184 mg/l.

Acute Toxicity - Birds Not toxic to birds. LD50 for (mallard ducks) is >1000 mg/kg

Other Organisms Bees: Not toxic to bees. LD50 104.5 µg/bee.

Sewage Treatment: Not inhibitory in sewage system, 2,4-D is rapidly biodegraded.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal methods and containers Instructions concerning the disposal of this product and its containers are given on the product label. Dispose according to applicable local and state government regulations.

Special precautions for landfill or incineration Please consult your state Land Waste Management Authority for more information

Section 14 - TRANSPORTATION INFORMATION

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



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Road and Rail

UN Number	Not applicable
Proper Shipping Name	Not applicable
Dangerous Goods Class	Not applicable
Hazchem Code	Not applicable
Packing Group	Not applicable
Special Precautions	Not applicable

Section 15 - REGULATORY INFORMATION

2,4 D is listed in the Australian Inventory of Chemical Substances (AICS).

APVMNA No: 62330

Section 16 - OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)

AICS Australian Inventory of Chemical Substances

SWA Safe Work Australia, formerly ASCC and NOHSC

CAS number Chemical Abstracts Service Registry Number

IARC International Agency for Research on Cancer

NTP National Toxicology Program (USA)

SUSDP Standard for the Uniform Scheduling of Drugs & Poisons

UN Number United Nations Number

This MSDS summarises our best knowledge of the health and safety hazard information on the product, and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact 4Farmers Pty Ltd, or in the event of an emergency, 000. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request

Contact point: Normal business hours – (08 9356 3445)

This is the end of the MSDS.



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