

SECTION 1: Identification

1.1. Product identifier

Trade name : Albaugh Akari 625 AC Herbicide

1.2. Other means of identification

2,4-D present as the dimethylamine and diethanolamine salts

1.3. Recommended use of the chemical and restrictions on use

1.3.1. Recommended use

Industrial/Professional use : For professional use only

Use of the substance/mixture : Agriculture Herbicide

1.3.2. Restrictions on use

No additional information available

1.4. Details of the importer

Albaugh Australia Pty Ltd
Level 1, 530 Little Collins Street, MELBOURNE 3000, Australia
Tel (03) 99097183
ABN: 676 890 994

1.5. Emergency telephone number

Emergency number : 1800 862 115 (Australia)
+61 2 9037 2994 Local (City): Sydney

SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

This material is hazardous according to Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture:

Acute toxicity (oral) : Category 4

Eye damage/irritation : Category 1

The following hazard categories fall outside the scope of the Workplace Health and Safety Regulations:

Hazardous to the aquatic environment (chronic) – Category 2

2.2. Label elements, including precautionary statements

Hazard pictograms :



Exclamation Mark

Corrosion

Environment

Signal word : Danger

Hazard statements : H302 - Harmful if swallowed
H318 - Causes serious eye damage

Precautionary statements : P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective clothing, protective gloves
P301+P312 - IF SWALLOWED: Call a POISON CENTER if you feel unwell
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER
P330 - Rinse mouth
P501 - Dispose of contents/container in accordance with local regulations

SECTION 3: Composition and information on ingredients

Name	Ingredient identifier (CAS No.)	Content
2,4-D, dimethylamine salt	2008-39-1	62.5%
2,4-D diethanolamine salt	5742-19-8	
Other ingredients (non-hazardous)	Not available	37.5%

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SECTION 4: First aid measures

4.1. Description of necessary first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON INFORMATION CENTER (Australia) on 13 11 26 or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain immediate emergency medical attention.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with plenty of mild soap and water. If symptoms persist, call a physician.
First aid facilities	: Eyewash, safety shower and normal washroom facilities.

4.2. Symptoms caused by exposure

In humans, prolonged breathing of 2,4-D causes coughing, burning, dizziness, and temporary loss of muscle coordination. Other symptoms of poisoning can be fatigue and weakness with possible nausea. On rare occasions following high levels of exposure, there can be inflammation of the nerve endings with muscular effects. Product may cause serious damage to eyes. Harmful if swallowed.

4.3. Medical attention and special treatment

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Suitable extinguishing equipment

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Under fire conditions this product may emit toxic and/or irritating fumes and gases including hydrogen chloride, phosgene, carbon monoxide and carbon dioxide.

This product is non combustible.

5.3. Special protective equipment and precautions for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering drains or water bodies. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses
Protection during firefighting	: In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit. Do not enter fire area without proper protective equipment, including respiratory protection. Breathable air apparatus must be worn when fighting a fire in which this product is involved.
Hazchem code	: •3Z

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled product or contaminated surfaces. Wear appropriate personal protective equipment and clothing to prevent exposure. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Protective equipment	: Equip cleanup crew with proper protection. See Section 8
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Soak up spills with inert solids, such as clay, sand, soil, vermiculite or diatomaceous earth as soon as possible. Collect spillage in sealable open-top type containers for disposal. If large liquid spills occur, attempt to recover as much spilt material from sumps and banded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe mist/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes.

Wear personal protective equipment. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool, well ventilated place out of direct sunlight. Store in a locked enclosure. Keep container tightly closed. Do not store with seed, fertilisers or foodstuffs.
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Incompatibilities : Strong bases. Strong acids.
Sources of ignition

SECTION 8: Exposure controls/personal protection

8.1. Exposure control measures

Exposure standards : No exposure standards have been established for the mixture. Exposure limits for ingredients and dimethylamine which could be formed on reaction is given below:

The exposure standard for the constituent, 2,4- Dichlorophenoxyacetic acid:
TWA = 10 mg/m³
STEL = Not set.
As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

8.2. Biological monitoring

No biological limit allocated for the product or any of its ingredients. No biological monitoring is required.

8.3. Control banding

Not available.

8.4. Engineering controls

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

8.5. Individual protection measures

Personal protective equipment : Avoid all unnecessary exposure. 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 goggles and appropriate respiratory protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. After each day's use, wash contaminated clothing and safety equipment.

Eye and face protection : Chemical goggles or safety glasses. Eye protection devices should conform to relevant regulations. Consult AS/NZS 2210 and AS/NZS 2919 for further information.

Skin protection : Wear protective gloves of impervious material. Occupational protective gloves should conform to relevant regulations. Consult AS/NZS 1336 and AS/NZS 1337 for further information.

Respiratory protection : If ventilation is inadequate, suitable respiratory protection should be worn, consult AS/NZS 1715 and AS/NZS 1716 for further information.

Thermal hazards : No further relevant information available.

SECTION 9: Physical and chemical properties

Physical state : Liquid

Colour : Yellow to Brownish Yellow

Odour : Ammonia-like odour

Odour threshold : No data available

pH : 8.0-10

Relative evaporation rate (butylacetate=1) : No data available

Melting point : Not Applicable

Freezing point : Approximately 0°C

Boiling point : Approximately 100°C at 100kPa

Flash point : Does not burn

Auto-ignition temperature : Not applicable - does not burn

Decomposition temperature : No data available

Flammability (solid, gas) : Non flammable

Vapour pressure : 2.37 kPa at 20°C

Relative vapour density at 20 °C : No data available

Relative density : Approx. 1.25 at 20 °C

Solubility : Completely soluble in water

Log Pow : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : Not applicable - does not burn

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Under heating conditions: carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke may be emitted, nitrogen and its compounds, may emit and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas, hydrogen chloride gas, other compounds of chlorine and water may be produced.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. Keep away from strong oxidising agents.

10.6. Hazardous decomposition products

Thermal decomposition may result in the release of toxic and/or irritating fumes. Hydrogen cyanide (hydrocyanic acid), Carbon monoxide, Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No data is available on the formulated product. Information on the individual hazardous ingredients is provided below.

The information presented below is based on the toxicity data for the constituent, 2,4-D:

2,4-D

Acute toxicity	: Oral: 699 mg/kg (rat) Dermal: >2000 mg/kg (rat) Inhalation: > 1.79 mg/l/4h (rat)
Skin corrosion/irritation	: Non irritating to skin of rabbits
Serious eye damage/irritation	: Causes irreversible eye damage.
Respiratory or skin sensitisation	: Not a skin sensitiser and not expected to be a respiratory sensitiser according to available information.
Germ cell mutagenicity	: Not suspected to cause genetic defects according to available data.
Carcinogenicity	: Not considered to be carcinogenic according to available data.
Reproductive toxicity	: Not considered to be toxic to reproduction according to available data.
Specific target organ toxicity (single exposure)	: Not expected to cause toxicity to a specific target organ through single exposure according to available information.
Specific target organ toxicity (repeated exposure)	: Not expected to cause toxicity to a specific target organ.
Aspiration hazard	: Not expected to be an aspiration hazard according to available information.

SECTION 12: Ecological information

12.1. Ecotoxicity

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

2,4-D

LC50 fishes (96h)	~100 mg/l for rainbow trout
EC50 Daphnia (48h)	184 mg/l

Acute Toxicity – Other Organisms

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

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

12.2. Persistence and degradability

2,4-D

Persistence and degradability	Half life in soil is typically 7 days. Loss from soil is principally by microbial degradation. Not inhibitory in sewage system, 2,4-D is rapidly biodegraded.
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The following data is for the active ingredient, 2,4-D Acid

Animals: In rats, following oral administration, elimination is rapid, and mainly as the unchanged substance. Following single doses of up to 10 mg/kg, excretion is almost complete after 24 hours, although, with higher doses, complete elimination takes longer. The maximum concentration in organs is reached after c. 12 hours.

Plants: In plants, metabolism involves hydroxylation, decarboxylation, cleavage of the acid side-chain, and ring opening.

Soil/Environment: In soil, microbial degradation involves hydroxylation, decarboxylation, cleavage of the acid side-chain, and ring opening. DT50 in soil <7 d. Koc c. 60. Rapid degradation in the soil prevents significant downward movement under normal conditions.

12.3. Bioaccumulative potential

2,4-D

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

2,4-D

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

12.5. Other adverse effects

Other information : No other effects to be mentioned.

SECTION 13: Disposal considerations

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Do not burn empty containers or product. Do not reuse container for any other purpose.

SECTION 14: Transport information

Road and rail transport : **Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail as per the Australian Special Provisions AU01.**

Additional Information: : Australian Special Provisions AU01: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packagings that do not incorporate a receptacle exceeding 500 Kg (L); or

(b) IBCs.

Marine transport: : **Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; MARINE POLLUTANT**

UN Number : 3082

Proper Shipping Name or Technical Name: : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2,4-D)

Transport Hazard Class: : 9

Packaging Group: : III

Hazchem Code: : •3Z

IMDG EMS Fire: : F – A

IMDG EMS Spill: : S – F

Environmental Hazards: : Yes. Marine Pollutant substance(s): 2,4-D

Special Precautions for User: : Not available.

Additional Information: : The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

Air transport: : **IATA provision SP A197: Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subject to this Code when transported air in; packages that have inner packages (plastic bottles, glass bottles, plastic bags) of 5 L for UN3082 and 5 kg for UN3077 or less.**

UN Number : 3082

Proper Shipping Name or Technical Name: : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS 2,4-D)

Transport Hazard Class: : 9

Packaging Group: : III

Hazchem Code: : •3Z

Special Precautions for User: : Not available.

Additional Information: : IATA Special Provision A197: when transported in sizes of ≤ 5 L or ≤ 5 kg per packaging (inner or single) are not subject to the code.

SECTION 15: Regulatory information

APVMA Number : 93927

Poisons Schedule : Schedule 6

AICIS : Listing in the AICS is not required for products regulated by the APVMA.

SECTION 16: Any other relevant information

Date of issue : 20/06/2024

Version : 1

Reason(s) for issue : First issue

Literature References : See respective sections for information.

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Abbreviations

: ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICIS – Australian Industrial Chemicals Introduction Scheme (formerly NICNAS)
AIIIC - Australian Inventory of Industrial Chemicals
APVMA – Agricultural Pesticides and Veterinary Medicines Australia
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017
IARC - International Agency for Research on Cancer
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 2023)
STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day.
SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons
SWA - Safe Work Australia, formerly ASCC and NOHSC
TGA – Therapeutic Goods Australia
TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.
WHS – Workplace Health and Safety

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product