

**Product name:** Banvine™ Herbicide**Issue Date:** 31.10.2025

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of New Zealand and may not meet the regulatory requirements in other countries.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Banvine™ Herbicide**Identified uses:** End use herbicide product**COMPANY IDENTIFICATION**

Corteva Agriscience New Zealand Limited
Private Bag 2017
New Plymouth 4342
New Zealand

Customer Information Number:

0800-803-939

NZCustomerservice@corteva.com**EMERGENCY TELEPHONE NUMBER****24-Hour Emergency Contact:** +64 6 751 2407**Local Emergency Contact:** 0800 844 455**For medical advice, contact the New Zealand Poisons Information Centre:**

0800 POISON (0800 764 766)

Transport Emergency Only Dial 111

This SDS may not provide exhaustive guidance for all the GHS controls assigned to this substance. The NZ EPA website www.epa.govt.nz should be consulted for a full list of triggered controls and cited regulations.

2. HAZARDS IDENTIFICATION

GHS Classification

NEW ZEALAND HAZARDOUS SUBSTANCES CLASSIFICATION: Classified as hazardous according to criteria in the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Notice 2017, and the Hazardous Substances (Classification) Notice 2017. Refer to Section 15 for EPA Approval Number.

GHS classifications:

Eye irritation - Category 2

Specific target organ toxicity (repeated exposure) - Category 1

Hazardous to soil organisms

Hazardous to terrestrial vertebrates

Hazardous to terrestrial invertebrates

Hazardous to the aquatic environment acute - Category 1

Hazardous to the aquatic environment chronic - Category 1

Hazard pictograms

Signal word: **WARNING!**

Hazard statements

May be harmful if swallowed.

Causes serious eye irritation.

Causes damage to organs.

Very toxic to aquatic life with long lasting effects.

Very toxic to the soil environment.

Toxic to terrestrial vertebrates.

Harmful to terrestrial invertebrates.

Prevention

Do not breathe vapours/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid release to the environment.

Wear protective gloves/ eye protection/ face protection.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/ physician.

If skin irritation occurs: Get medical advice/ attention.

Collect spillage.

Storage

Store locked up.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CASRN	Concentration
Salts of 2,4-D	2569-01-9	28.7 %
Dicamba (ISO)	1918-00-9	14.4 %
2,6-Dichlorophenoxyacetic Acid	575-90-6	0.1 – 0.25 %

4. FIRST AID MEASURES

Consult the National Poisons Information Centre (0800 POISON (0800 764 766) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

Eye contact: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIREFIGHTING MEASURES

HAZCHEM: •3Z

Suitable extinguishing media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture

Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Phosgene.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire-fighting operations. If contact is likely, change to full chemical resistant fire-fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7: Handling, for additional precautionary measures. Keep personnel out of low areas. Keep up-wind of spill. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8: Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12: Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Corteva Agriscience for clean-up assistance. See Section 13: Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour or mist. Wash thoroughly after handling. Keep

container closed. Use with adequate ventilation. See Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held in quantities of 100 litres or more, either alone or in aggregate with other hazardous substances. See Hazardous substances Emergency Management and Identification Regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
2,4-D	ACGIH	TWA (Inhalable particulate matter)	10 mg/ m ³
	NZ OEL	WES-TWA	10 mg/m ³

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles.

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to AS/NZS 2161.10) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full-body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

The following should be effective types of air-purifying respirators: Organic vapour cartridge with a particulate pre-filter.

Other Information: Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:

AS/NZS 1336: Eye and face protection – Guidelines.

AS/NZS 1337: Personal eye protection - Eye and face protectors for occupational applications.

AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.

AS/NZS 2161: Occupational protective gloves.

AS/NZS 2210: Occupational protective footwear.

AS/NZS 4501: Occupational protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid.
Colour	Brown
Odour	Amine.
Odour Threshold	No data available
pH	7 - 8 (undiluted)
Melting point/range	Not applicable to liquids
Freezing point	No data available
Boiling point (760 mmHg)	No data available
Flash point – closed cup	Not applicable
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour Pressure	No data available
Relative Vapour Density (air = 1)	No data available
Relative Density (water = 1)	No data available
Water solubility	Soluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Liquid Density	1.166 g/cm ³ at 20 °C
Molecular weight	No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard

Chemical stability: No decomposition if stored and applied as directed. Stable under normal conditions.

Possibility of hazardous reactions: Stable under recommended storage conditions.

Conditions to avoid: Active ingredient decomposes at elevated temperatures.

Incompatible materials: Avoid contact with: Acids. Oxidizers.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Nitrogen oxides. Decomposition products can include trace amounts of: Phosgene.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s): LD50, Rat, 2,000 mg/kg. *Estimated.*

2,4-D: LD50 (Rat, male): 639 mg/kg

Dicamba: LD50 (Rat, male): 1,612 mg/kg. LD50 (Rat, female): 1,356 mg/kg. OECD Test Guideline 401.

2,6-Dichlorophenoxyacetic Acid: For similar materials: LD50 (Rat): 639 mg/kg.

Acute inhalation toxicity

Prolonged excessive exposure to mist may cause adverse effects. Excessive exposure may cause severe irritation to the upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

2,4-D: LC50 (Rat): 4 hour, dust/mist > 1.79 mg/L. No deaths occurred at this concentration.

The substance has no acute inhalation toxicity. Maximum attainable concentration.

Dicamba: LC50 (Rat, male): 4 hour, dust/mist, 4.46 mg/L. OECD Test Guideline 403. Not corrosive to the respiratory tract

2,6-Dichlorophenoxyacetic Acid: For similar materials: LC50 (Rat): 4 hour, dust/mist > 1.79 mg/L.

No deaths occurred at this concentration. The substance or mixture has no acute inhalation toxicity. Maximum attainable concentration

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s): LD50, Rabbit > 5,000 mg/kg. *Estimated.*

2,4-D: LD50 (Rabbit, male and female): > 5,000 mg/kg

Dicamba: LD50 (Rat): > 2,000 mg/kg. No deaths occurred at this concentration. The substance or mixture has no acute dermal toxicity.

2,6-Dichlorophenoxyacetic Acid: For similar materials: LD50 (Rabbit, male and female): > 5,000 mg/kg

Skin corrosion/irritation

Product: Prolonged contact may cause skin irritation with local redness. Repeated exposure may cause irritation, even a burn.

2,4-D: Rabbit: No skin irritation

Dicamba: Rabbit: No skin irritation. OECD Test Guideline 404.

Serious eye damage/eye irritation

Product: May cause severe eye irritation. May cause severe corneal injury. May cause permanent impairment of vision.

2,4-D: Rabbit: Corrosive.

Dicamba: Rabbit: Corrosive. OECD Test Guideline 405.

2,6-Dichlorophenoxyacetic Acid: Rabbit: Corrosive.

Sensitisation

For similar active ingredient(s). Did not cause allergic skin reactions when tested in guinea pigs.

For the minor component(s): Skin contact may cause an allergic skin reaction in a small proportion of individuals.

For respiratory sensitization: No relevant data found.

2,4-D: Guinea pig: May cause sensitisation by skin contact.

Dicamba: Guinea pig: Does not cause skin sensitisation. Maximisation test. OECD Test Guideline 406.

2,6-Dichlorophenoxyacetic Acid: Guinea pig: Does not cause sensitisation.

Chronic toxicity**Germ cell mutagenicity**

2,4-D: In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were predominantly negative.

Dicamba: In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

2,6-Dichlorophenoxyacetic Acid: For similar materials: In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were predominantly negative.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product: Evaluation of available data suggests that this material is not an STOT-SE toxicant.

2,4-D: Inhalation: May cause respiratory irritation.

Dicamba: Inhalation: May cause respiratory irritation. Target organ: Nervous system. May cause drowsiness or dizziness.

2,6-Dichlorophenoxyacetic Acid: Inhalation: May cause respiratory irritation.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product: Evaluation of available data suggests that this material is not an STOT-RE toxicant.

2,4-D: In animals, effects have been reported on the following organs: Liver. Kidney. Gastrointestinal tract. Muscles. Observations in animals include: Gastrointestinal irritation. Vomiting.

Dicamba: Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

2,6-Dichlorophenoxyacetic Acid: For similar materials: In animals, effects have been reported on the following organs: Liver. Kidney. Gastrointestinal tract. Muscles. Observations in animals include: Gastrointestinal irritation. Vomiting.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

For similar active ingredient(s): In animals, effects have been reported on the following organs: Eye. Kidney. Liver. Adrenal gland. Blood-forming organs (Bone marrow & Spleen). Thyroid.

Carcinogenicity

2,4-D: There is no evidence of carcinogenicity in laboratory animal toxicity studies. While some epidemiological studies report a positive association between 2,4-D exposure and cancer, a weight of evidence analysis of the epidemiology data across studies reveals no indication that 2,4-D causes cancer in humans.

2,6-Dichlorophenoxyacetic Acid: For similar materials: There is no evidence of carcinogenicity in laboratory animal toxicity studies. While some epidemiological studies report a positive association between 2,4-D exposure and cancer, a weight of evidence analysis of the epidemiology data across studies reveals no indication that 2,4-D causes cancer in humans

Reproductive toxicity

2,4-D: In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Dicamba: In animal studies, did not interfere with reproduction. Did not cause birth defects in laboratory animals.

2,6-Dichlorophenoxyacetic Acid: For similar materials: In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Aspiration Hazard

Product: Based on physical properties, not likely to be an aspiration hazard.

2,4-D: Based on physical properties, not likely to be an aspiration hazard

2,6-Dichlorophenoxyacetic Acid: Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2,4-D:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 133 - 320 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Poecilia reticulata (guppy)): 8.4 - 70.7 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Pimephales promelas (fathead minnow)): 100 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 25 - 262 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (*Pseudokirchneriella subcapitata* (green algae)): 24.2 mg/l
Exposure time: 96 h

EC50 (*Lemna gibba*): 0.58 mg/l

	Exposure time: 14 d
	ErC50 (Myriophyllum spicatum): 0.373 mg/l Exposure time: 14 d
	NOEC (Myriophyllum spicatum): 0.0305 mg/l Exposure time: 14 d
Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 63.4 mg/l End point: growth Exposure time: 32 d
	LOEC (Pimephales promelas (fathead minnow)): 100.9 mg/l End point: growth Exposure time: 32 d
	MATC (Maximum Acceptable Toxicant Level) (Pimephales promelas (fathead minnow)): 80 mg/l End point: growth Exposure time: 32 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 46.2 mg/l End point: number of offspring Exposure time: 21 d
Toxicity to soil dwelling organisms	: LC50 (Eisenia fetida (earthworms)): 0.0616 mg/cm2 Exposure time: 48 d
	NOEC (Eisenia fetida (earthworms)): 50.0 mg/kg Exposure time: 56 d End point: Other Method: Other guidelines GLP: yes
Toxicity to terrestrial organisms	: dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5620 mg/kg diet.
	oral LD50 (Anas platyrhynchos (Mallard duck)): > 500 mg/kg bodyweight.
	oral LD50 (Apis mellifera (bees)): 94 micrograms/bee

Dicamba:

Toxicity to fish	: LC50 (Danio rerio (zebra fish)): 100 mg/l Exposure time: 96 h Test Type: Static Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 110 - 750 mg/l Exposure time: 48 h Method: Method Not Specified.

Toxicity to algae/aquatic plants : ErC50 (Myriophyllum spicatum (Eurasian watermilfoil)): 0.94 mg/l
Exposure time: 14 d
Method: OECD Test Guideline 239

NOEC (Myriophyllum spicatum (Eurasian watermilfoil)): 0.27 mg/l
Exposure time: 14 d
Method: OECD Test Guideline 239

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 10 mg/l
Exposure time: 33 d
Test Type: flow-through

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Americamysis bahia (mysid shrimp)): 5.8 mg/l
Exposure time: 21 d

Toxicity to terrestrial organisms : Remarks: Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm)., Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

dietary LC50 (Colinus virginianus (Bobwhite quail)): > 10000 mg/kg diet.
Exposure time: 8 d

oral LD50 (Colinus virginianus (Bobwhite quail)): 216 mg/kg bodyweight.
Exposure time: 14 d

contact LD50 (Apis mellifera (bees)): > 100 micrograms/bee
Exposure time: 2 d

oral LD50 (Apis mellifera (bees)): > 100 micrograms/bee
Exposure time: 2 d

2,6-Dichlorophenoxyacetic Acid:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 133 - 320 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: For similar material(s):

LC50 (Poecilia reticulata (guppy)): 8.4 - 70.7 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: For similar material(s):

LC50 (Pimephales promelas (fathead minnow)): 100 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: For similar material(s):

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 25 - 262 mg/l Exposure time: 48 h Test Type: static test Remarks: For similar material(s):
Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (green algae)): 24.2 mg/l Exposure time: 96 h Remarks: For similar material(s): ErC50 (diatom Navicula sp.): > 100 mg/l Exposure time: 72 h Test Type: static test Method: Estimated. EC50 (Lemna gibba): 0.58 mg/l Exposure time: 14 d Remarks: For similar material(s):
M-Factor (Acute aquatic toxicity)	: 1
Toxicity to fish (Chronic toxicity)	: NOEC (Pimephales promelas (fathead minnow)): 63.4 mg/l End point: growth Exposure time: 32 d LOEC (Pimephales promelas (fathead minnow)): 100.9 mg/l End point: growth Exposure time: 32 d MATC (Maximum Acceptable Toxicant Level) (Pimephales promelas (fathead minnow)): 80 mg/l End point: growth Exposure time: 32 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 46.2 mg/l End point: number of offspring Exposure time: 21 d Remarks: For similar material(s):

Persistence and degradability

Components:

2,4-D:

Biodegradability	: Result: Readily biodegradable. Biodegradation: 99 % Exposure time: 28 d Method: OECD Test Guideline 301F or Equivalent
Biochemical Oxygen Demand (BOD)	: 65 % Incubation time: 5 d 66 % Incubation time: 10 d

85 %
Incubation time: 20 d

Chemical Oxygen Demand (COD) : 1.09 kg/kg
Stability in water : Degradation half life (half-life): 2 - 4 d pH: 5
Photodegradation :

Dicamba:

Biodegradability : Result: Not biodegradable
Biodegradation: 10 %
Method: OECD Test Guideline 301F

2,6-Dichlorophenoxyacetic Acid:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 99 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent
Remarks: 10-day Window: Pass

Bioaccumulative potential**Components:****2,4-D:**

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 10
Exposure time: 3 d

Partition coefficient: n-octanol/water : log Pow: -0.83
Method: Measured
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Dicamba:

Partition coefficient: n-octanol/water : log Pow: 2.21
pH: 5

2,6-Dichlorophenoxyacetic Acid:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 10
Exposure time: 3 d
Remarks: For similar material(s):

Partition coefficient: n-octanol/water : log Pow: -0.83
Method: Measured
Remarks: For similar material(s):
Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Mobility in soil**Components:****2,4-D:**

Distribution among environmental compartments : Koc: 5 - 212
Method: Measured
Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Stability in soil : Test Type: Photolysis
Dissipation time: 68 d
Method: Estimated.
Test Type: aerobic degradation
Dissipation time: 1.7 - 4 d
Method: Measured
Test Type: anaerobic degradation
Dissipation time: 66.2 d
Method: Measured

Dicamba:

Distribution among environmental compartments : Koc: 0 - 470

2,6-Dichlorophenoxyacetic Acid:

Distribution among environmental compartments : Koc: 5 - 212
Method: Measured
For similar material(s): Potential for mobility in soil is very high (Koc between 0 and 50).

Other adverse effects**Components:****2,4-D:**

Ozone-Depletion Potential : This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

2,6-Dichlorophenoxyacetic Acid:

Ozone-Depletion Potential : This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Waste handling, treatment and disposal practices must be in compliance with the New Zealand Hazardous Substances (Disposal) Notice 2017. Additional local requirements may be applicable in accordance with planning controls under the Resource Management Act. Regulations concerning waste management may vary in different locations.

14. TRANSPORT INFORMATION

PUBLIC PASSENGER VEHICLE TRANSPORT: To be transported **ONLY** in the sealed original container. Maximum volume permitted to be transported in a passenger service vehicle: 1L

International Regulations

UNRTDG

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-Dichlorophenoxyacetic Acid, Triethanolamine Salt, Dicamba)
Class	: 9
Packing group	: III
Labels	: 9
Environmentally hazardous	: yes

IATA-DGR

UN/ID No.	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-Dichlorophenoxyacetic Acid, Triethanolamine Salt, Dicamba)
Class	: 9
Packing group	: III
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 964
Packing instruction (passenger aircraft)	: 964

IMDG-Code

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-Dichlorophenoxyacetic Acid, Triethanolamine Salt, Dicamba)
Class	: 9
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Marine pollutant	: yes
Remarks	: Stowage category A

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

NZS 5433

UN number	: UN 3082
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Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-Dichlorophenoxyacetic Acid, Triethanolamine Salt, Dicamba)
Class	:	9
Packing group	:	III
Labels	:	9
Hazchem Code	:	•3Z
Marine pollutant	:	Yes

Matters needing attention for transportation

Marine Pollutants in single or combination packaging containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code and IATA special provision A197. If the product meets these special provisions, it may be shipped in New Zealand as a non-dangerous goods under provisions in NZS 5433 code which accepts IMDG and IATA classification.

This information is not intended to convey all specific regulatory or operational requirements/ information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

ACVMG APPROVAL NUMBER: Not required.

EPA Approval Number: HSR000368

ADVICE TO PRODUCT USERS REGARDING GHS CONTROLS: Users of this product should make reference to the New Zealand Hazardous Substances and New Organisms Act and Regulations, and the Health and Safety at Work Act for relevant risk management controls. Additional local requirements may be applicable in accordance with planning controls under the Resource Management Act. Refer to Environment Protection Authority for more information <http://www.epa.govt.nz>

16. OTHER INFORMATION

Revision

Identification Number: 101200275 / A157 / Issue Date: 31.10.2025 / Version: Replaces 5.10.2021

DAS Code: IWD-4422

Sections amended: 14

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
NZ OEL	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
TWA	8-hour, time-weighted average
WES-TWA	Workplace Exposure Standard - Time Weighted average

Full text of other abbreviations

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IATA - International Air Transport Association;

IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - not otherwise specified; NZIoC - New Zealand Inventory of Chemicals; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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