

Product name: Banvine™ Herbicide**Issue Date: 31.10.2019**

Dow AgroSciences* (NZ) Ltd encourages and expects you to read and understand the entire (M)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.

1. PRODUCT AND COMPANY IDENTIFICATION

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

COMPANY IDENTIFICATION

DOW AGROSCIENCES* (NZ) LIMITED
89 PARITUTU ROAD
4342 NEW PLYMOUTH
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 HSNO 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) Regulations 2001. Refer to Section 15 for HSNO Approval Number.

HSNO classifications: 6.1E, 6.4A, 6.9A, 9.1A, 9.2A, 9.3B, 9.4C

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 dust/ fume/ gas/ mist/ 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%
Triethanolamine	102-71-6	10.1%
Balance	Not available	46.8%

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: 2X

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 (M)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
Triethanolamine	ACGIH	TWA	5 mg/ m ³
	NZ OEL	WES-TWA	5 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. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 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: No data available

Chemical stability: Thermally stable at recommended temperatures and pressures.

Possibility of hazardous reactions: Polymerization will not occur.

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, 2,300 mg/kg. *Estimated.*

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.*

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.

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Sensitization

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

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

For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

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

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

For similar active ingredient(s): Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative.

Teratogenicity

For similar active ingredient(s): 2,4-Dichlorophenoxyacetic acid. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Reproductive toxicity

For similar active ingredient(s): 2,4-Dichlorophenoxyacetic acid. In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring.

Mutagenicity

For the component(s) tested: In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were predominantly negative.

Aspiration Hazard

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

COMPONENTS INFLUENCING TOXICOLOGY:**Acute inhalation toxicity****Salts of 2,4-D**

No adverse effects are anticipated from single exposure to vapour.

For the product: The LC50 has not been determined.

For similar material(s): LC50, Rat, 4 Hour, dust/mist > 1.79 mg/l

Dicamba (ISO)

Prolonged excessive exposure to dust may cause adverse effects. Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs.

LC50, Rat, 4 Hour > 9.6 mg/l

Triethanolamine

Based on the available data, respiratory irritation was not observed. No deaths occurred following exposure to a saturated atmosphere.

Balance

The LC50 has not been determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity**Salts of 2,4-D****Acute toxicity to fish**

For similar active ingredient(s): Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

For similar active ingredient(s): LC50, *Oncorhynchus mykiss* (rainbow trout), static test, 96 Hour, 250 mg/l

Acute toxicity to aquatic invertebrates

For similar active ingredient(s): EC50, *Daphnia magna* (Water flea), static test, 48 Hour, 184 mg/l

Acute toxicity to algae/aquatic plants

Based on information for a similar material:

ErC50, *Pseudokirchneriella subcapitata* (green algae), 5 d, 66.5 mg/l

ErC50, diatom *Navicula* sp., 5 d, Biomass, 5.28 mg/l

EbC50, *Lemna minor* (duckweed), 14 d, Biomass, 0.58 mg/l

Chronic toxicity to aquatic invertebrates

For similar material(s): NOEC, *Daphnia magna* (Water flea), flow-through test, 21 d, 27.5 mg/l

Toxicity to Above Ground Organisms

Based on information for a similar material:

Material is practically non-toxic to birds on a dietary basis (LC50 > 5,000 ppm).

Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

Dicamba (ISO)**Acute toxicity to fish**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, *Lepomis macrochirus* (Bluegill sunfish), 48 Hour, 20 mg/l. Method Not Specified.

LC50, *Lepomis macrochirus* (Bluegill sunfish), static test, 4 d, 135 - 180 mg/l. Method Not Specified.

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, 28 - 153 mg/l. Method Not Specified.

LC50, *Cyprinodon variegatus* (sheepshead minnow), static test, 4 d > 180 mg/l. Method Not Specified.

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), 48 Hour, 110 - 750 mg/l. Method Not Specified.

LC50, scud *Gammarus* sp., 4 d, 3.9 - 4.9 mg/l

Toxicity to Above Ground Organisms

Material is practically non-toxic to birds on a dietary basis (LC50 > 5,000 ppm).

Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

Dietary LC50, *Colinus virginianus* (Bobwhite quail), 8 d > 10,000 mg/kg diet.

Oral LD50, *Colinus virginianus* (Bobwhite quail), 14 d, 216 mg/kg bodyweight.

Contact LD50, *Apis mellifera* (bees), 2 d, > 100 micrograms/bee

Oral LD50, *Apis mellifera* (bees), 2 d, > 100 micrograms/bee

Triethanolamine**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.

LC50, *Pimephales promelas* (fathead minnow), flow-through test, 96 Hour, 11,800 mg/l. OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, *Ceriodaphnia dubia* (water flea), static test, 48 Hour, 609.9 mg/l. OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

ErC50, alga *Scenedesmus* sp., static test, 72 Hour, Growth rate inhibition, 512 mg/l. OECD Test Guideline 201 or Equivalent, Test substance: Neutralised product

Toxicity to bacteria

EC50, activated sludge, 3 Hour > 1,000 mg/l. OECD 209 Test

Chronic toxicity to aquatic invertebrates

NOEC, *Daphnia magna* (Water flea), semi-static test, 21 d, number of offspring, 16 mg/l

LOEC, *Daphnia magna* (Water flea), semi-static test, 21 d, number of offspring, 31 mg/l

Balance**Acute toxicity to fish**

No relevant data found.

Persistence and degradability**Salts of 2,4-D**

Biodegradability: For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Biological oxygen demand (BOD)

Incubation Time	BOD
5 d	100 %
10 d	100 %
20 d	100 %

Dicamba (ISO)

Biodegradability: No relevant information found.

Triethanolamine

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Pass

Biodegradation: 97 %

Exposure time: 28 d

Method: OECD Test Guideline 301A or Equivalent

10-day Window: Not applicable

Biodegradation: 89 %

Exposure time: 14 d

Method: OECD Test Guideline 302B or Equivalent

Theoretical Oxygen Demand: 2.04 mg/mg

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 0.097 d

Method: Estimated.

Balance

Biodegradability: No relevant data found.

Bioaccumulative potential**Salts of 2,4-D**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Potential for mobility in soil is high (Koc between 50 and 150).

Dicamba (ISO)

Bioaccumulation: Potential for mobility in soil is very high (Koc between 0 and 50). Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water (log Pow): -1.69 - 3.01 *Estimated*.

Triethanolamine

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water (log Pow): -2.3 at 25 °C *Measured*

Bioconcentration factor (BCF): < 3.9 *Cyprinus carpio* (Carp) 42 d *Measured*

Balance

Bioaccumulation: No relevant data found.

Mobility in Soil**Salts of 2,4-D**

For similar active ingredient(s): 2,4-Dichlorophenoxyacetic acid. Potential for mobility in soil is very high (Koc between 0 and 50).

Dicamba (ISO)

Partition coefficient (Koc): 0 - 470

Triethanolamine

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 10 *Estimated*.

Balance

No relevant data found.

Results of PBT and vPvB assessment**Salts of 2,4-D**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Triethanolamine

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Balance

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

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) Regulations 2001. 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.

This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

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

Classification for ROAD and Rail transport:

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

Classification for SEA transport (IMO-IMDG):

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(2,4-Dichlorophenoxyacetic Acid, Triethanolamine Salt, Dicamba)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	2,4-Dichlorophenoxyacetic Acid, Triethanolamine Salt
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

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

HAZCHEM: 2X

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.

HSNO Approval Number: HSR000368

ADVICE TO PRODUCT USERS REGARDING HSNO CONTROLS: Users of this product should make reference to the New Zealand Hazardous Substances and New Organisms Act and Regulations 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 publication; User Guide to the HSNO Controls Regulations. <http://www.epa.govt.nz>

16. OTHER INFORMATION

Revision

Identification Number: 101200275 / A157 / Issue Date: 31.10.2019/ Version: Replaces 19.07.2016

DAS Code: IWD-4422

Sections amended: 1, 2, 6, 14, 16

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

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; 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; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations;

UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

DOW AGROSCIENCES* (NZ) LIMITED urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

© Dow AgroSciences (NZ) Ltd 2019