

Product name: Gallant® Ultra Herbicide**Issue Date:** 27.08.2026

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. IDENTIFICATION

Product name: Gallant® Ultra Herbicide**Identified uses:** End use herbicide product**COMPANY IDENTIFICATION**

CORTEVA AGRISCIENCE NEW ZEALAND LIMITED
LOCKED 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

Hazard 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

Flammable liquid – category 4

Acute oral toxicity - category 4

Aspiration hazard – category 1

Eye irritation – category 2
Specific target organ toxicity repeated exposure – category 2
Hazardous to the aquatic environment acute – category 1
Hazardous to the aquatic environment - chronic – category 1
Hazardous to terrestrial vertebrates



Signal word: **DANGER!**

Hazard statements

Combustible liquid
Harmful if swallowed
May be fatal if swallowed and enters airways.
Causes serious eye irritation.
May cause damage to organs (Blood. Kidney. Liver. Testes. Thyroid) through prolonged or repeated exposure.
Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates.

Prevention

Keep out of reach of children.
Read label before use.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Do not breathe fumes/mist/vapours/spray
Wear protective gloves/protective clothing/ eye and face protection.
Do not eat, drink or smoke when using this product.
Wash skin thoroughly after handling.
Avoid unintentional release to the environment.

Response

In case of fire: Use water fog or fine spray, dry chemical, foam, or carbon dioxide extinguishers. See section 5 for more information.
If medical advice is needed, have product container or label at hand.
IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
If skin irritation occurs: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

This substance is a mixture.

Component	CAS No.	Concentration
Haloxypop-P methyl ester	72619-32-0	46.9 %
Oxirane, polymer with methyloxirane, mono(nonylphenyl)ether	37251-69-7	3 - 10 %
Haloxypop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid	116661-27-9	0.3 – 1 %
2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester	Not Assigned	0.1 – 0.25 %
2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester	Not Assigned	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: 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. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

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: None known.

Indication of any immediate medical attention and special treatment needed

Notes to physician: 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 code: ●3Z

Suitable extinguishing media: Water spray. Dry chemical. Carbon dioxide (CO₂). Alcohol resistant foam.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon oxides. Nitrogen oxides.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Advice for firefighters

Fire Fighting Procedures: Evacuate area. Remove undamaged containers from fire area if it is safe to do so. Use water spray to cool unopened containers. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Local authorities should be advised if significant spillages cannot be contained. Prevent from entering into soil, ditches, sewers, underwater. If the product contaminates rivers and lakes or drains inform respective authorities. Retain and dispose of contaminated wash water. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in. Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean up remaining materials from spill with suitable absorbant. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to over pressurisation of the container. Keep in suitable, closed containers for disposal. See Section 13, Disposal Considerations, for additional information

7. HANDLING AND STORAGE

Precautions for safe handling: Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapours/dust. Smoking, eating and drinking should be prohibited in the application area. Take care to prevent spills, waste and minimize release to the environment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Conditions for safe storage: Store in a closed container. Keep in properly labelled containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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.

Components with workplace control parameters

Contains no substances with occupational exposure limit values

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

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: Butyl rubber. Chlorinated polyethylene. Neoprene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). 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 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: Wear clean, body-covering clothing.

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, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no

respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

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 & colour	Brown liquid.
Odour	Solvent
Odour Threshold	No data available
pH	5.4 <i>CIPAC MT 75.2</i>
Melting point/range	Not applicable to liquids
Freezing point	No test data available
Boiling point (760 mmHg)	202 ⁰ c <i>Literature</i> (solvent)
Flash point - closed cup	97.5 ⁰ c
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	No data available
Lower explosion limit	1.2 % vol <i>Literature</i> (solvent)
Upper explosion limit	8.5 % vol <i>Literature</i> (solvent)
Vapour Pressure	18.662 hPa (20 °C) <i>Literature</i>
Relative Vapour Density (air = 1)	1.148
Water solubility	Emulsifiable
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	34.4 mPa.s at 20 °C; 14.1 mPa.s at 40 °C
Explosive properties	No data available
Oxidizing properties	No significant increase (>5°C) in temperature
Liquid Density	1.151 g/ml <i>Calculated.</i>

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: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: Strong 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 oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 500 mg/kg
Method: OECD Test Guideline 423
GLP: yes
Information source: Internal study report
Moderate 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.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
No deaths occurred at this concentration.
Information source: Internal study report
No adverse effects are anticipated from single exposure to mist. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
No deaths occurred at this concentration.
The substance or mixture has no acute dermal toxicity
Information source: Internal study report
Prolonged skin contact is unlikely to result in absorption of harmful amounts. The substance or mixture has no acute inhalation toxicity

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:

Acute oral toxicity : LD50 (Rat, female): 623 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2 mg/l
Test atmosphere: dust/mist
Method: Estimated.
The substance or mixture has no acute inhalation toxicity

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

Haloxfop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Acute oral toxicity : For similar material(s): LD50 (Rat, female): 623 mg/kg
For similar material(s): LD50 (Rat, male): > 300 mg/kg

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

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Acute oral toxicity : For similar material(s): LD50 (Rat, female): 265 mg/kg
For similar material(s): LD50 (Rat, male): 393 mg/kg

Acute dermal toxicity : For similar material(s): LD50 (Rabbit): > 5,000 mg/kg

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Acute oral toxicity : For similar material(s): LD50 (Rat, female): 265 mg/kg
For similar material(s): LD50 (Rat, male): 393 mg/kg

Acute dermal toxicity : For similar material(s): LD50 (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Information source: Internal study report

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Information source: Internal study report

Respiratory or skin sensitisation

Product:

Test Type : Local lymph node assay (LLNA)
Species : Mouse
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 429
Remarks : Information source: Internal study report

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:

Species : Guinea pig
Result : Does not cause skin sensitisation.

Haloxypop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Species : Guinea pig
Result : For similar material(s): Does not cause skin sensitisation.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Species : Guinea pig
Result : For similar material(s): Does not cause skin sensitisation.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Species : Guinea pig
Result : For similar material(s): Does not cause skin sensitisation.

Chronic toxicity**Germ cell mutagenicity****methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:**

Germ cell mutagenicity - Assessment : For similar active ingredient(s). Haloxypop acid. Animal genetic toxicity studies were negative.

Haloxypop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Germ cell mutagenicity - Assessment : For similar active ingredient(s). Haloxypop acid. Animal genetic toxicity studies were negative.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Germ cell mutagenicity - Assessment : For similar material(s): Haloxypop acid. In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Germ cell mutagenicity - Assessment : For similar material(s): Haloxypop acid. In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Carcinogenicity**methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:**

Carcinogenicity - Assessment : Haloxypop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumours in female mice in a lifetime dietary feeding study.

Haloxyfop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Carcinogenicity - Assessment : For similar active ingredient(s). Haloxyfop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumours in female mice in a lifetime dietary feeding study.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Carcinogenicity - Assessment : For similar material(s): Haloxyfop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumours in female mice in a lifetime dietary feeding study.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Carcinogenicity - Assessment : For similar material(s), Haloxyfop did not cause cancer in laboratory rats; however, there was a slightly increased incidence of malignant liver tumours in female mice in a lifetime dietary feeding study.

Reproductive toxicity**methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:**

Reproductive toxicity - Assessment : For similar active ingredient(s). Haloxyfop acid. In animal studies, did not interfere with reproduction.
For similar active ingredient(s). Haloxyfop acid. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Haloxyfop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Reproductive toxicity - Assessment : For similar active ingredient(s). Haloxyfop acid. In animal studies, did not interfere with reproduction.
For similar active ingredient(s). Haloxyfop acid., Has been toxic to the foetus in laboratory animals at doses toxic to the mother.

Did not cause birth defects in laboratory animals.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Reproductive toxicity - Assessment : For similar material(s): Haloxyfop acid. In animal studies, did not interfere with reproduction.
For similar material(s): Haloxyfop acid. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Reproductive toxicity - Assessment : For similar material(s): Haloxyfop acid. In animal studies, did not interfere with reproduction.
For similar material(s): Haloxyfop acid. Has been toxic to the foetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

STOT - single exposure**Haloxyfop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:**

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

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

Repeated dose toxicity**methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:**

Remarks : For similar active ingredient(s). Haloxyfop acid. In animals, effects have been reported on the following organs: Liver. Blood. Kidney. Testes. Thyroid. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Haloxyfop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Remarks : For similar active ingredient(s). Haloxyfop acid. In animals, effects have been reported on the following organs: Liver. Blood. Kidney. Testes. Thyroid. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Remarks : The data presented are for the following material: Haloxyfop acid. In animals, effects have been reported on the following organs: Kidney. Gastrointestinal tract. Blood. Testes. Thyroid. Liver. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Remarks : The data presented are for the following material: Haloxyfop acid. In animals, effects have been reported on the following organs: Kidney. Gastrointestinal tract. Blood. Testes. Thyroid. Liver. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Aspiration toxicity**Product:**

May be fatal if swallowed and enters airways.

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:

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

Haloxyfop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

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

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Based on available information, aspiration hazard could not be determined.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Based on available information, aspiration hazard could not be determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity**Product:**

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.92 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203 or Equivalent Information source: Internal study report
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 38 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 or Equivalent Information source: Internal study report
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 31 mg/l End point: Growth rate inhibition

	Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 or Equivalent Information source: Internal study report
Toxicity to soil dwelling organisms	: LC50 (<i>Eisenia fetida</i> (earthworms)): 671.05 mg/kg Exposure time: 14 d End point: mortality Method: OECD Test Guideline 207 GLP: yes Information source: Internal study report
Toxicity to terrestrial organisms	: oral LD50 (<i>Colinus virginianus</i> (Bobwhite quail)): 1517 mg/kg bodyweight. End point: mortality Method: OPPTS 850.2100 Information source: Internal study report
	oral LD50 (<i>Apis mellifera</i> (bees)): > 210.0 µg/bee Exposure time: 48 h End point: mortality Method: OECD Test Guideline 213 GLP: yes Information source: Internal study report
	contact LD50 (<i>Apis mellifera</i> (bees)): > 200.0 µg/bee Exposure time: 48 h End point: mortality Method: OECD Test Guideline 214 GLP: yes
methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:	
Toxicity to fish	: LC50 (<i>Lepomis macrochirus</i> (Bluegill sunfish)): 0.0884 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 or Equivalent
Toxicity to daphnia and other aquatic invertebrates	: EC50 (<i>Daphnia magna</i> (Water flea)): > 12.3 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 or Equivalent
Toxicity to algae/aquatic plants	: ErC50 (<i>Pseudokirchneriella subcapitata</i> (green algae)): > 3.87 mg/l End point: Growth rate inhibition Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 201 or Equivalent
M-Factor (Acute aquatic toxicity)	: 10
M-Factor (Chronic aquatic toxicity)	: 10
Toxicity to soil dwelling organisms	: LC50 (<i>Eisenia fetida</i> (earthworms)): 1,343 mg/kg Exposure time: 14 d

Toxicity to terrestrial organisms : oral LD50 (*Colinus virginianus* (Bobwhite quail)): 1159 mg/kg bodyweight.
contact LD50 (*Apis mellifera* (bees)): > 100 micrograms/bee
oral LD50 (*Apis mellifera* (bees)): > 100 micrograms/bee

Oxirane, polymer with methyloxirane, mono(nonylphenyl)ether:

Toxicity to fish : Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 86 mg/l
Exposure time: 96 h

Haloxypop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Toxicity to fish : LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 0.0884 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 12.3 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae/aquatic plants : ErC50 (*Pseudokirchneriella subcapitata* (green algae)): > 3.87 mg/l
End point: Growth rate inhibition
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 201 or Equivalent

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 10

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Toxicity to fish : For similar material(s): LC50 (*Pimephales promelas* (fathead minnow)): 0.343 mg/l
Exposure time: 96 h
Test Type: flow-through test

For similar material(s): LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 0.227 mg/l
Exposure time: 96 h

For similar material(s): LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.376 mg/l
Exposure time: 96 h

For similar material(s): LC50 (*Atlantic silverside* (*Menidia menidia*)): 0.33 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : For similar material(s): EC50 (Daphnia magna (Water flea)): 6.15 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Toxicity to fish : For similar material(s): LC50 (Pimephales promelas (fathead minnow)): 0.343 mg/l
Exposure time: 96 h
Test Type: flow-through test

For similar material(s): LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.227 mg/l
Exposure time: 96 h

For similar material(s): LC50 (Oncorhynchus mykiss (rainbow trout)): 0.376 mg/l
Exposure time: 96 h

For similar material(s): LC50 (Atlantic silverside (Menidia menidia)): 0.33 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : For similar material(s): EC50 (Daphnia magna (Water flea)): 6.15 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

Persistence and degradability

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:

Biodegradability : Not biodegradable
Biodegradation: 8 - 11 %
Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent
10-day Window: Fail

Stability in water : Test Type: Hydrolysis
Degradation half life (half-life): < 24 h pH: 9

Haloxypop Methyl (S-) isomer: 2-(4-((3-chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic acid:

Biodegradability : For similar material(s): Based on stringent OECD test guidelines, this material cannot be considered as readily

biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Biodegradability : Not biodegradable
For similar material(s): Biodegradation under aerobic static laboratory conditions is low (BOD20 or BOD28/ThOD between 2.5 and 10%).

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Biodegradability : For similar material(s): Not biodegradable

Bioaccumulative potential

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:

Bioaccumulation : Bioconcentration factor (BCF): 262
Method: Estimated.

Partition coefficient: n-octanol/water : log Pow: 0.63 - 4.6
Method: Measured

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 438
Method: Estimated.

Partition coefficient: n-octanol/water : log Pow: 4.51
Method: Estimated.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): < 1
Method: Estimated.

Partition coefficient: n-octanol/water : log Pow: 3.98
Method: Estimated.

Mobility in soil

methyl (R)-2-(4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenoxy)propionate:

Distribution among environmental compartments : Koc: 17800
Method: Estimated.

2-(4-((6-Chloro-5-(trifluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Distribution among environmental compartments : Koc: 5454
Method: Estimated.

2-(4-((3-Chloro-5-(chloro difluoromethyl)-2-pyridinyl)oxy)phenoxy)propanoic Acid, Methyl Ester:

Distribution among : Koc: 5454
environmental compartments Method: Estimated.

Other adverse effects**Oxirane, polymer with methyloxirane, mono(nonylphenyl)ether:**

Results of PBT and vPvB : Not persistent, bioaccumulative, and toxic (PBT).
assessment

Endocrine disrupting properties

No data available

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 sealed original container. Maximum volume permitted to be transported: 10 Litres

International Regulations**UNRTDG**

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (haloxyfop-methyl)
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. (haloxyfop-methyl)
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. (haloxyfop-methyl)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : Yes (haloxyfop-methyl)
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
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (haloxyfop-methyl)
Class : 9
Packing group : III
Labels : 9
Hazchem Code : •3Z
Marine pollutant : Yes

Matters needing attention for transportation

Marine Pollutants assigned UN number 3077 and 3082 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 IMDG special provision 375, IATA Special provision A197, and ADR/RID special provision 375.

The transport classification(s) provided herein are for informational purposes only and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

ACVMG APPROVAL NUMBER: P8111

EPA Approval Code: HSR100054

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

Issue Date: 27.08.2026 / Version: Replaces 06.10.2021

Product code: C2A-9-1 (GF-142)

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; 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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