



Infosafe No™ 3NV2L	Issue Date : November 2019	ISSUED by NUFARM
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 Product Name **CHATEAU®HERBICIDE**

1. Identification

GHS Product Identifier	CHATEAU®HERBICIDE
Product Code	00650
Product Type	Herbicide
Company Name	Nufarm NZ
Address	6 Manu Street, Otahuhu Auckland 2024 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150
Emergency phone number	0800 651 911
Email	nzinfo@nufarm.com
Recommended use of the chemical and restrictions on use	A contact and soil residual herbicide for season-long weed control in grapes, kiwifruit, pipfruit, stonefruit, bush fruit, hops and shelterbelts.
Other Information	This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. Hazard Identification

Signal Word (s)	WARNING
Hazard Statement (s)	H361 Suspected of damaging fertility or the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H421 Very toxic to the soil environment.
General Precautionary Statement (s)	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
Pictogram (s)	Health hazard, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.
	 
Precautionary statement – Prevention	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust or spary mist. P264 Wash hands and face thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P281 Use personal protective equipment as required.
Precautionary statement – Response	P308+P313 IF exposed or concerned: Get medical advice/attention. P391 Collect spillage.
Other Information	6.8B Reproductive/Developmental toxicant, 6.9B target organ toxicant, 9.1A aquatic toxicant, 9.2A soil toxicant

3. Composition/information on ingredients

Chemical Characterization	Solid		
Ingredients	Name	CAS	Proportion
	Flumioxazin	103361-09-7	500 g/kg
	Other ingredients (considered non-hazardous)		10-30 %
	Kaolin	1322-58-7	10-30 %

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4. First-aid measures

First Aid Measures	For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to mouth. Obtain medical attention.
Inhalation	Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Ingestion	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
Skin	Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.
Eye contact	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance even if there are no immediate symptoms.
First Aid Facilities	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
Advice to Doctor	Treat symptomatically.
Most important symptoms/effects, acute and delayed	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable Extinguishing Media	Do not use water jet as an extinguisher, as this will spread the fire.
Hazards from Combustion Products	Thermal decomposition or combustion products may include harmful gases or vapours.
Special Protective Equipment for fire fighters	Full protective clothing and self-contained breathing apparatus.
Specific Methods	Keep up wind to avoid inhalation of gases, vapours, fumes and smoke. Do not allow washings to reach sewage or effluent systems.
Specific hazards arising from the chemical	None known.
Hazchem Code	2Z
Decomposition Temp.	Data not available.
Other Information	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

6. Accidental release measures

Spills & Disposal	Wear protective clothing. Clear area of unprotected personnel. Sweep up solids without generating dust (use water to dampen). Contain and absorb liquid spills with inert material and place in waste containers. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Avoid discharge to the aquatic environment.

7. Handling and storage

Precautions for Safe Handling	Do not handle until all safety precautions have been read and understood. The person mixing or applying CHATEAU HERBICIDE must be a 'Qualified
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Contractor' or a 'Qualified Person'. The spray mixture may also be prepared by a 'Qualified Loader'. For more information refer to Hazardous Substances (Hazardous Property Controls) Notice 2017.

Do not breathe dust, spray, mists.

TRACKING: Is not required.

RECORD KEEPING: Records of use as described in the NZS 8409 Management of Agrichemicals must be kept.

BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.

Keep out of reach of children.

Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals.

Stores containing 100kg of CHATEAU HERBICIDE are subject to signage, and more than 100kg require emergency response plans.

Always read the label and any attached leaflet before use.

Aggregate Storage Volume Thresholds:
When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

Conditions for safe storage, including any incompatibilities

Other Information

8. Exposure controls/personal protection

Occupational exposure limit values No exposure standards have been set for this product.
WES TWA for Kaolin (CAS 1332-58-7) = 10mg/m³ inhalable dust and 2mg/m³ respirable dust.
Potential Daily Exposure (PDE food) = 0.014mg/kg bw/day
Potential Daily Exposure (PDE drinking water) = 0.004mg/kg bw/day
Potential Daily Exposure (PDE other) = 0.002mg/kg bw/day

Appropriate engineering controls Handle in well ventilated areas, generally natural ventilation is adequate.
Avoid generation of dust when handling solid. If dust generation is unavoidable, use forced draft to keep dust away from operator, or wear suitable dust respirator.

Personal Protective Equipment When opening the container, preparing spray and using the prepared spray wear safety goggles, washable hat, waterproof gloves, cotton overalls buttoned to the neck and wrist, and boots.

Hygiene Measures Do not eat, drink or smoke while using.
Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

9. Physical and chemical properties

Form Solid

Appearance Beige granules.

Odour Odourless

Decomposition Temperature Data not available.

Melting Point 202-204°C (flumioxazin)

Boiling Point Not applicable

Solubility in Water Disperses in water.

pH 5.0-7.0 (1% solution)

Vapour Pressure 3.2 mPa (flumioxazin, 22°C)

Vapour Density (Air=1) Data not available

Partition Coefficient: n-octanol/water Kow Log P is 2.55

Density 0.50-0.58 g/ml

Flash Point Not available.

Flammability Data not available.

Auto-Ignition Temperature Not applicable

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Explosion Properties	Not explosive
Oxidising Properties	Not oxidising
Kinematic Viscosity	Data not available.
Relative density	Not applicable.
Other Information	Water Dispersible Granule.

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage.
Conditions to Avoid	There are no known conditions that are likely to result in a hazardous situation.
Incompatible Materials	Data not available.
Hazardous Decomposition Products	Data not available.
Possibility of hazardous reactions	Keep away from strong oxidising agents.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. Toxicological Information

Toxicology Information	No harmful effects are expected if the precautions on the label and this SDS are followed.
Acute Toxicity - Oral	LD50 (rat) >5000 mg/kg for flumioxazin
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for flumioxazin
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >3.93 mg/l for flumioxazin
Ingestion	The concentrate is of low toxicity if swallowed.
Skin	Non irritating to skin (flumioxazin)
Eye	Mild eye irritant (rabbits)(flumioxazin)
Respiratory sensitisation	Based on available data the classification criteria are not met.
Skin Sensitisation	Product is not a skin sensitiser.
Germ cell mutagenicity	Based on available data the classification criteria are not met.
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive Toxicity	May damage the unborn child. Development toxicity (oral, rats):NOAEL 10mg ai/kg bw (oral, rabbits):NOAEL >3000mg ai/kg bw
STOT-single exposure	Not specified as a specific target organ toxicant after single exposure.
STOT-repeated exposure	Not specified as a specific target organ toxicant after repeated exposure.
Aspiration Hazard	Not relevant. Solid.
Mutagenicity	Data not available.
Skin corrosion/irritation	Not a skin corrosive.
Other Information	The Australian Acceptable Daily Intake (ADI) for flumioxazin for a human is 0.003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 3 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', December 2014).

12. Ecological information

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Persistence and degradability	Flumioxazin is rapidly degradable
Mobility	Not considered mobile.
Bioaccumulative Potential	Flumioxazin is not bioaccumulative
Other Precautions	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environmental Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	LC50 (96hr) for Onchorhynchus mykiss (Rainbow Trout) = 26.2 mg ai/l for formulated product. LC50 (96hr) for Onchorhynchus mykiss (Rainbow Trout) = 2.3 mg/l for flumioxazin. Chronic toxicity for Onchorhynchus mykiss (Rainbow Trout) = NOEC: 0.0077mg ai/l for flumioxazin.
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 5.9 mg/l for flumioxazin.
Acute Toxicity - Algae	EC50 for Selenastrum capricornutum = 0.0012 mg ai/L for flumioxazin.
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. Acute oral LD50 Mallard Duck is >2130 mg/kg bw for flumioxazin. Bees: Not toxic to bees. LD50 (contact) >105µg/bee, (oral) >100µg/bee for flumioxazin.

13. Disposal considerations

Product Disposal	To avoid disposal all attempts should be made to utilise the product completely in accordance with it's registered use. Dilute unusable product according to the label and pour onto fallow land. Prevent the product entering natural water sources.
Container Disposal	Ensure container is completely empty. Crush and bury in a suitable landfill. Dispose of product only by using according to the label, or at an appropriate landfill.

14. Transport information

Transport Information	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
U.N. Number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (contains flumioxazin, 50%)
Transport hazard class(es)	9
Hazchem Code	2Z
Packaging Method	-
Packing Group	III
EPG Number	-
IERG Number	47
IMO Marine Pollutant	Marine pollutant (applies to packs greater than 5Kg or 5L)
IMDG EMS	F-A, S-F
Other Information	Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

15. Regulatory information

National and or International Regulatory Information	Registered pursuant to the ACVM Act 1997, No. P9507 See www.foodsafety.govt.nz for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR101301 See www.epa.govt.nz for approval controls.
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Product Name **CHATEAU®HERBICIDE**

Packaging & Labelling	WARNING KEEP OUT OF REACH OF CHILDREN Read Label before use.
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16. Other Information

Date of preparation or last revision of SDS August 2019

Contact Person/Point IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
24Hr Tollfree Emergency No: 0800 651 911
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766
Additional label claims added in Section-1

Revisions Highlighted

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