

Infosafe No™ 3NU96	Issue Date : April 2020	ISSUED by NUFARM
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Product Name **ARCHER®**

1. Identification

GHS Product Identifier	ARCHER®
Product Code	00072
Product Type	Selective 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
Recommended use of the chemical and restrictions on use	Herbicide for the control of certain broadleaf weeds in a wide range of crops.
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

Other Information	9.1B aquatic toxicant, 9.2A soil toxicant, 9.3C terrestrial vertebrate toxicant. ECOTOXIC Toxic to aquatic organisms with long lasting effects. Very toxic to soil environment. Selective herbicide-very toxic to some plant species. Harmful to terrestrial vertebrates.
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3. Composition/information on ingredients

Chemical Characterization Ingredients	Liquid		
	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Clopyralid (present as the triisopropanolamine salt)	73455-09-1	300 g/L
	Other non hazardous ingredients		Balance

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. Seek medical assistance.
First Aid Facilities	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
Advice to Doctor	Treat symptomatically.

5. Fire-fighting measures

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Suitable extinguishing media	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Hazards from Combustion	May emit toxic fumes of hydrogen chloride or phosgene if involved in fires or exposed to extreme heat.
Products	
Special Protective Equipment for fire fighters	Full protective clothing and self-contained breathing apparatus.
Specific Methods	Keep up wind. Do not allow washings to reach sewage or effluent systems. Keep containers cool with water spray.
Hazchem Code	2X
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. Contain spill and absorb with sand, soil or absorbent granules. 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	Prevent product or washings from entering drains, waterways or sewers, and prevent contamination of soil. This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. Handling and storage

Precautions for Safe Handling	Avoid skin and eye contact and inhalation of spray mist. APPROVED HANDLER: This product must be under the control of an approved handler when any quantity is being used. The person in charge of a place where the product is sold may sell the substance to a person only if he or she has confirmation that an approved handler at the place where it is to be used. TRACKING: Not applicable. RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3L or more of ARCHER is applied within 24 hours. BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants. Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers. This product must not be applied onto or into water.
Conditions for safe storage, including any incompatibilities	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 100L of ARCHER are subject to signage, 1,000L require secondary containment and more than 1,000L require emergency response plans.
Additional information on precautions for use	Do not use for treating turf that will be mown and the clippings used for making compost; or made available for collection for, or deposited at, a green waste recycling centre.
Other Information	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.

8. Exposure controls/personal protection

Occupational exposure limit values	No Workplace Exposure Standards (WESSs) have been set for clopyralid. No Environmental Exposure Limits (EELs) have been set for substances containing clopyralid. Tolerable Exposure Limits (TELs) have been derived from Acceptable Daily Exposure (ADE) values. ADE for clopyralid is 0.15mg/kg bw/day PDE (food) = 0.105mg/kg bw/day
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Appropriate engineering controls	PDE (drinking water) = 0.03mg/kg bw/day Handle in well ventilated areas, generally natural ventilation is adequate.
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear safety goggles, chemically resistant 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. Wash splashes of concentrate from skin immediately.

9. Physical and chemical properties

Form	Liquid
Appearance	Clear to dark greenish liquid.
Boiling Point	~100°C at 100KPa.
Solubility in Water	Soluble in water.
Specific Gravity	1.163 @ 20°C
pH	6.5 - 8.5 (neat)
Vapour Pressure	1.33 mPa at 24°C for clopyralid acid
Volatile Component	Water component: ~50%
Flash Point	N/A
Flammability	Non combustible material.
Other Information	(SL) Soluble concentrate

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage.
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 a similar formulation
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for a similar formulation
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >0.38 mg/l for clopyralid
Ingestion	The concentrate is of low toxicity if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.
Inhalation	The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. When applying the product as a spray avoid breathing in spray mist.
Skin	Not a skin irritant and not harmful by dermal exposure.
Eye	The concentrate may cause irritation of the eyes.
Carcinogenicity	The weight of the evidence is that clopyralid is not carcinogenic.
Reproductive Toxicity	Data indicates no reproductive effects.
Chronic Effects	
Mutagenicity	Data indicates no mutagenic effects.
Other Information	The Australian Acceptable Daily Intake (ADI) for clopyralid for a human is 0.5 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 50 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive

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species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', June 2014).

12. Ecological information

Persistence and degradability	Half life (DT50) in soil for clopyralid is typically 8 - 66 days.
Mobility	Rapid degradation in soil prevents significant downward movement under normal conditions.
Other Precautions	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	The following data is for the active ingredient, clopyralid. LC50 (96hr) for rainbow trout is 103.5 mg/l LC50 (96hr) for bluegill sunfish is 125.4 mg/l EC50 (48hr) is 225 mg/l.
Acute Toxicity - Daphnia	
Acute Toxicity - Algae	EC50 (96h) Algae: Selenastrum capricornutum = 6.9mg/L (clopyralid technical)
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for bobwhite quail is >2000mg/kg Bees: Not toxic to bees. LD50 >100µg/bee

13. Disposal considerations

Product Disposal	Dispose of product only by using according to the label, or at an approved landfill.
Container Disposal	Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable 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	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (clopyralid 30%)
Transport hazard class(es)	9
Hazchem Code	2X
Packaging Method	-
Packing Group	III
EPG Number	-
IERG Number	47
IMO Marine Pollutant	Yes. Environmentally Hazardous Substance mark required.
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. P7390 See www.foodsafety.govt.nz for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR000761 See www.epa.govt.nz for approval controls.
Packaging & Labelling	ECOTOXIC HERBICIDE - Not for use in home gardens
Hazard Rating Systems	NFPA/HMIS: 2-0-0

16. Other Information



Safety Data Sheet

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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
Revisions	5 yearly review carried out.
Highlighted	
Other Information	Supersedes SDS issued March 2015 ...End Of MSDS...

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