



SAFETY DATA SHEET

BONANZA[®] ELITE HERBICIDE

Section 1: Identification of the Substance and Supplier

Product name: **BONANZA ELITE HERBICIDE**
Chemical name of active Ingredient(s): Diflufenican 500 SC
Supplier: ADAMA New Zealand Limited
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand
P.O. Box 1799, Nelson New Zealand.
Telephone +64 3 543 8275 Fax: +64 3 543 8274
Emergency Telephone: **0800 POISON (0800 764 766)**

Section 2: Hazards Identification

Hazard Classifications: 91.A, 9.2C
Most important hazards: **ECOTOXICITY**
Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container. **Harmful to the soil environment**

Section 3. Composition/information on Ingredients

Substance/preparation	Preparation				
<u>Information on hazardous ingredients</u> *	CAS No.	%	EC Number	Symbol	R-Phrases
Diflufenican	83164-33-4	40-44	-	-	R52/53

- **Occupational Exposure Limit(s), if available, are listed in section 8**

Section 4: First-Aid Measures

First-aid measures: Remove victim from area of exposure. Wash off remaining material with plenty of water.
Inhalation: Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical help.
Ingestion: If swallowed do NOT induce vomiting. Wash out mouth with plenty of water.
Get medical attention. Never give anything by mouth to an unconscious person.
Skin contact: If skin contact occurs, remove contaminated clothing and flush skin and hair with water.
Eye contact: If splashed in eyes, wash out immediately with water. If inhaled move the victim to fresh air immediately.

Section 5: Fire-Fighting Measures

Extinguishing media
Suitable: Dry chemical, water spray, foam, carbon dioxide.
Hazardous thermal (de)composition products: Fluoride compounds and nitrogen oxides.
Protection of fire-fighters: When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus.

Section 6: Accidental Release Measures

Personal precautions: As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC.
Environmental precautions: Do not discharge into drains or the environment.
Methods for cleaning up: Absorb remainder in sand or other inert material. Avoid using sawdust or other combustible materials. Dispose of in an authorized waste collecting point.



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Section 7: Handling and Storage

Handling:	When mixing or applying wear appropriate protective clothing including cotton overalls buttoned to the neck and wrist, impervious, elbow-length gloves, and eye protection. Remove protective clothing and wash hands, arms and face with soap and water before meals and after work.
Storage:	Store in original, unopened container in a cool, dry place, out of direct sunlight. Keep out of reach of children. Do not smoke, drink or eat while using and away from stock feed or foodstuffs.
<u>Packaging materials</u> Suitable:	High density polyethylene extrusion blow containers. Polyethylene-lined metal drums

Section 8: Exposure Controls/Personal Protection

Engineering measures:	Ventilation required.
Hygiene measures:	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.
Occupational Exposure Limits	
<u>Common name:</u>	Diflufenican
TLV (USA):	Not established
<u>Personal protective equipment:</u>	
Respiratory system:	Respiratory protection is not required if good ventilation is maintained.
Skin and body:	Wear suitable protective clothing. Chemical resistant boots.
Hands:	Chemical resistant gloves.
Eyes:	Safety goggles or face shield.

Section 9: Physical and Chemical Properties

Physical state:	Liquid
Colour:	White
Odour:	Faint odour
Boiling point:	100°C (water)
Density:	1.19± 0.02 g/ml @ 20°C
Vapour pressure:	4.25 x 10 ⁻³ mPa @ 25°C (Diflufenican)
Solubility in water:	0.05 ppm @ 20°C (Diflufenican)
Octanol/water partition	log = 4.9 (Diflufenican)
Coefficient pH:	5-9 CIPAC, MT 75
Flammability:	Not flammable
Explosion properties :	Not Explosive
Oxidation properties:	Not oxidizing

Section 10: Stability and Reactivity

Stability:	Not subject to polymerisation
Materials to avoid:	Oxidising agents, acids and alkali
Hazardous reactions:	None
Hazardous decomposition products:	Fluoride compounds and nitrogen oxides.

Section 11. Toxicological Information

<u>Preparation</u>	Diflufenican
Acute toxicity - Oral:	LD ₅₀ (rats) 2,000 mg/kg



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Acute toxicity - Dermal:	LD ₅₀ (rabbits) >2000 mg/kg
Acute toxicity – Inhalation:	LC ₅₀ (rat) > 1.43 mg/L (4 hours) (maximum attainable concentration)
Skin irritation:	Not irritating
Eye irritation:	Minimal irritant
Sensitization:	Non sensitizer
Common name:	Diflufenican
Chronic toxicity:	NOAEL: rat = 500 ppm or 25mg/kg/day for 2 years mice= 500 ppm or 60-73 mg/kg/day for 2 years
Carcinogenicity:	NOEL: dog= 100 mg/kg/day EPA: None IARC: None EU: None
Mutagenicity:	Not mutagenic
Reproduction toxicity:	NOEL: rat = 200 ppm (3 generation)
Other information:	Teratogenicity: NOEL (rat) >1000 mg/kg/day NOEL (rabbit)>1000 mg/kg/day

Section 12: Ecological Information

Ecotoxicity:	Fish LC ₅₀ (96 hours) rainbow trout (oncorhynchus mykiss) > 100 mg/L = 135 mg/L
	Daphnia magna EC ₅₀ (48 hours) >100 mg/L
	Algae (selenastrum capricornum) EC ₅₀ (72 hours) >1.74 µg/L
	Birds Japanese quail (coturnix coturnix japonica) LD ₅₀ >2000 mg/kg LC ₅₀ >5000 ppm (5 day feeding)
	Bees Oral LD ₅₀ (48 hours) >118 µg/bee Contact LD ₅₀ (48 hours) >100 µg/bee
Common name:	Diflufenican
Mobility:	Low mobility
Persistence/degradability:	Half-life time (t _{1/2}): 105-210 days
Ecotoxicity:	Birds Bobwhite quail LD ₅₀ >2150 mg/kg Mallard duck LD ₅₀ >4000 mg/kg
	Fish LC ₅₀ (96 hours) rainbow trout = 56-100 mg/L carp = 105 mg/L algae > 10 mg/L LC ₅₀ (48 hours) daphnia >10 mg/L
	Harmful to aquatic organisms. Birds: low toxicity. Bees: Not toxic

Section 13: Disposal Considerations

Methods of disposal:	Triple rinse empty container and add rinsate to spray tank. Empty containers and product should NOT be burnt. Crush or puncture containers and bury in a suitable landfill, away from watercourses or if appropriate, recycle. Do not contaminate ponds, waterways and ditches with product or used containers.
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Section 14: Transport Information

UN Number	3082
Proper shipping name	Environmentally hazardous substance, Liquid, N.O.S, (DIFLUFENICAN)
DG Class	9
Packing Group	III



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Hazchem Code 2X
Marine Pollutant Yes
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National transport regulations: Do not carry this product on a passenger service vehicle.

Segregation: Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation.

Refer: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

Section 15: Regulatory Information

New Zealand Regulatory Information:

NZFSA Approval: Registered pursuant to the ACVM Act 1997, No. P7901
See www.nzfsa.govt.nz/acvm for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR001704
See www.ermanz.govt.nz for approval controls

HSNO Classifications: 9.1A, 9.2C



ECOTOXIC

Section 16: Other Information

Note: This product is a registered agricultural chemical and must be therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

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