

Infosafe No™ 3NV0B	Issue Date : July 2017	ISSUED by NUFARM
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 Product Name **Sentry Herbicide**

Classified as hazardous

1. Identification

GHS Product Identifier	Sentry Herbicide
Product Code	0512
Product Type	Group B Herbicide
Company Name	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address	103-105 Pipe Road Laverton North Victoria 3026 Australia
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Emergency phone number	1800 033 498 (24hr Australia)
Recommended use of the chemical and restrictions on use	For the pre-emergence control or suppression of certain annual grass and broadleaf weeds in imidazolinone herbicide tolerant barley, wheat (single gene) and canola; and for the early post-emergence control or suppression of certain annual grass and broadleaf weeds in imidazolinone herbicide tolerant canola and wheat (single gene) as specified in the Directions for Use section of the label.
Other Information	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

2. Hazard Identification

GHS classification of the substance/mixture	Eye Damage/Irritation: Category 1 Skin Corrosion/Irritation: Category 2
Signal Word (s)	DANGER
Hazard Statement (s)	Causes serious eye damage. Causes skin irritation.
General Precautionary Statement (s)	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.
Pictogram (s)	Corrosion, Exclamation mark, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.
	 
Precautionary statement – Prevention	Wear protective gloves, clothing, eye and face protection. Wash hands and exposed skin thoroughly after handling.
Precautionary statement – Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Other Information	Poisons Schedule S5

3. Composition/information on ingredients

Chemical Characterization	Solid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Imazapic	104098-48-8	525 g/kg

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Imazapyr	81334-34-1	175 g/kg
Talc	14807-96-6	10-30 %
Anionic Surfactant		0-10 %

4. First-aid measures

Inhalation	Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.
Ingestion	Rinse mouth and then drink plenty of water. If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Skin	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
Eye contact	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
Advice to Doctor	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	Water fog, foam, carbon dioxide or dry chemical. Avoid strong water jets - airborne dusts may form a flammable dust cloud.
Hazards from Combustion Products	If involved in a major fire, could evolve oxides of carbon or nitrogen.
Special Protective Equipment for fire fighters	Breathable air apparatus must be worn when fighting a fire in which this product is involved.
Other Information	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. Accidental release measures

Spills & Disposal	Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable. Dispose of at a landfill in accordance with local regulations.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8. If the possibility of dust generation exists, wear a suitable respirator.
Environmental Precautions	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

7. Handling and storage

Precautions for Safe Handling	Avoid generating dusts while handling the product and mixing. Do not mix, store or apply the product or spray solutions of the product in aluminium, galvanised steel or unlined steel containers or spray tanks.
Conditions for safe storage, including any incompatibilities	Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.
Tank Cleaning	Thoroughly flush all spray equipment with water following the use of this product and before use with other products. After using in mixtures with other products, ensure that all spray equipment is additionally cleaned according to recommendations for the tank mix partners before using on sensitive crops.
Other Information	Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Occupational exposure limit values	<u>Name</u>	STEL		TWA		<u>Footnote</u>
		<u>mg/m3</u>	<u>ppm</u>	<u>mg/m3</u>	<u>ppm</u>	
	Talc			2.5		
Appropriate engineering controls	Handle in well ventilated areas, generally natural ventilation is adequate.					

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Respiratory Protection	If dusts are present, wear a class P1 dust mask.
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. See label for re-entry period information.
Hygiene Measures	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

9. Physical and chemical properties

Form	Solid
Appearance	Brown granules
Odour	No odour
Solubility in Water	Disperses in water.
Vapour Pressure	<0.01 mPa (imazapic); <0.013 (imazapyr)
Partition Coefficient: n-octanol/water	Kow Log P is 0.393 (imazapic) ; 0.11 (imazapyr)
Flash Point	>173°C (TOC)
Flammability	Combustible
Other Information	pKa is 2, 3.6, 11 (imazapic, imazapyr) Bulk density is 590 kg/m ³

10. Stability and reactivity

Chemical Stability	Stable under normal conditions.
Incompatible Materials	Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. Not compatible with aluminium.
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 MSDS are followed.
Acute Toxicity - Oral	LD50 (rat) >5,000 mg/kg for imazapic LD50 (rat) >5,000 mg/kg for imazapyr
Acute Toxicity - Dermal	LD50 (rat) >2,000 mg/kg for imazapic LD50 (rat) >2,000 mg/kg for imazapyr
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >4.38 mg/l for imazapic LC50 (rat) (4hr) >5.1 mg/l for imazapyr
Ingestion	The concentrate is of low toxicity if swallowed.
Inhalation	The components of the product are of low volatility and no adverse effects are expected from handling the concentrate.
Skin	Prolonged contact with the concentrate may cause irritation.
Eye	The concentrate may cause irritation of the eyes.
Skin Sensitisation	Product is not a skin sensitiser.
Carcinogenicity	Data indicates no carcinogenic effects.
Reproductive Toxicity	Data indicates no reproductive effects.
Chronic Effects	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

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Serious eye damage/irritation	This product is a severe eye irritant.
Mutagenicity	Data indicates no mutagenic effects.
Skin corrosion/irritation	The product is a skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for imazapic for a human is 0.3 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 137 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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', March 2016). ADI for imazapyr is 2.5 mg/kg/day, NOEL 250 mg/kg/day.

12. Ecological information

Persistence and degradability	Loss from soil is principally by microbial degradation. Not readily biodegradable. Refer to minimum re-cropping interval tables on the label for more information.
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	LC50 (96hr) for Brachydanio rerio is >100 mg/l for a similar product
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 127 mg/l for a similar product.
Acute Toxicity - Algae	EC50 (96hr) for Selenastrum capricornutum 3.38 mg/l for a similar product.
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for mallard duck and bobwhite quail is >2150 mg/kg Bees: Not toxic to bees. LD50 >100 µg/bee.

13. Disposal considerations

Product Disposal	On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
Container Disposal	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Empty containers and product should not be burnt.

14. Transport information

Storage and Transport	Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01. For bulk shipments as Class 9, use UN 3077, HazChem code 2Z.
UN Number (Sea Transport)	3077
IMO Class/Packing Group	Class 9
IMO Marine Pollutant	Marine Pollutant



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IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains imazapic)

15. Regulatory information

Regulatory Information Australia: WHS regulations (2011) - Schedule 11: classification not listed.

Poisons Schedule S5

Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Other Information This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 67951.

16. Other Information

Date of preparation or last revision of SDS 12/07/2017

Contact Person/Point Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498

Revisions Highlighted The SDS was reviewed. Minor changes were made to the information and product has been rebranded.
...End Of MSDS...

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