

Infosafe No™ NU05M	Issue Date : January 2012	ISSUED by NUFARM
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 Product Name **BATON Herbicide**

Classified as hazardous

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name</b>	BATON Herbicide
<b>Product Code</b>	0170
<b>Product Type</b>	Group I Herbicide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Emergency Tel.</b>	1800 033 498 (24hr Australia)
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Recommended Use</b>	For the control of broadleaved weeds in fallow before direct drilling or sowing of cereals and pastures; and in cereal crops, pastures, sugar cane, peanuts and non agricultural areas as per the Directions for Use table on the label.
<b>Other Information</b>	This is a PHENOXY HERBICIDE that can cause severe damage to susceptible crops such as cotton, grapes, tomatoes, oil seed crops and ornamentals. This MSDS 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. HAZARDS IDENTIFICATION

<b>Hazard Classification</b>	Classified as hazardous HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. Hazard classification according to the criteria of NOHSC. Dangerous goods classification according to the Australia Dangerous Goods Code.
<b>Risk Phrase(s)</b>	Classified as hazardous R22 Harmful if swallowed. R41 Risk of serious damage to eyes. R43 May cause sensitization by skin contact.
<b>Safety Phrase(s)</b>	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eye/face protection. S46 If swallowed, seek medical advice immediately and show this container or label.
<b>Other Information</b>	Poisons Schedule S6

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical Characterization</b>	Solid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	2,4-D (present as the dimethylamine salt)	2008-39-1	800g/kg
	Other ingredients (considered non-hazardous)		<10%

## 4. FIRST AID MEASURES

<b>Ingestion</b>	Rinse mouth and then drink plenty of water. If vomiting occurs, give more water to drink to assist dilution. Do not give anything by mouth to a semi-conscious or unconscious person. Obtain medical advice.
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<b>Skin</b>	Not a likely route of exposure; the product is handled in a water soluble bag. Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use. If irritation persists, seek medical advice.
<b>Eye</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.
<b>First Aid Facilities</b>	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
<b>Advice to Doctor</b>	Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	May emit toxic fumes of hydrogen chloride, phosgene or amines if involved in fires or exposed to extreme heat.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus must be worn when fighting a fire in which this product is involved.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spills &amp; Disposal</b>	Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8. If product has spilt from water soluble bags and the possibility of dust generation exists, wear a suitable respirator.
<b>Environmental Precautions</b>	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

## 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers. The product is handled in a water soluble bag.
<b>Conditions for Safe Storage</b>	Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.
<b>Other Information</b>	Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses. Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. Care should be taken especially where capeweed, Paterson's curse and variegated thistles predominate in the pasture. Always read the label and any attached leaflet before use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards</b>	Safe Work Australia has set the following exposure standard for 2,4-D acid (solid) : TLV (TWA) 10 mg/m <sup>3</sup> , STEL -.
<b>Engineering Controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Personal Protective Equipment</b>	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 face shield or goggles.
<b>Hygiene Measures</b>	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.

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**Requirements Concerning Special Training** Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	Solid
<b>Appearance</b>	Brown powder
<b>Odour</b>	Fish like odour
<b>Solubility in Water</b>	Soluble in water.
<b>Vapour Pressure</b>	1.9 x 10 <sup>-5</sup> Pa (2,4-D acid, 25°C)
<b>Octanol/Water Partition Coefficient</b>	Kow Log P is -1.01 (pH9, 25°C)
<b>Flammability</b>	Non combustible material.
<b>Other Information</b>	pKa is 2.77

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Prolonged heating of the solid will slowly release dimethylamine.
<b>Incompatible Materials</b>	Reaction of the concentrate or spray mix with acids will precipitate solid 2,4-D and largely de-activate the product and cause blockages in spray equipment. The addition of a strong alkali such as caustic soda will cause release of dimethylamine vapour. Dimethylamine is moderately toxic, LD50 (oral, rat) is 660 mg/kg and a TLV of 2 ppm (TWA) has been set.
<b>Hazardous Reactions</b>	Keep away from strong oxidising agents.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. TOXICOLOGICAL INFORMATION

<b>Toxicology Information</b>	No harmful effects are expected if the precautions on the label and this MSDS are followed.
<b>Inhalation</b>	Not a likely route of exposure when handling the concentrate. Symptoms of exposure by inhalation are similar to those described for ingestion.
<b>Ingestion</b>	Not a likely route of exposure. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. Ingestion of the concentrate in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination. Handling the product in its water soluble packing avoids any risk of dust formation and inhalation or ingestion.
<b>Skin</b>	Prolonged contact with the concentrate may cause irritation. Prolonged contact with the concentrate may result in absorption of 2,4-D in harmful amounts.
<b>Eye</b>	Will irritate the eyes. Prolonged contact with the concentrate may cause damage to the eye.
<b>Chronic Effects</b>	Chronic Overexposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.
<b>Carcinogenicity</b>	The weight of the evidence is that 2,4-D is not carcinogenic.
<b>Acute Toxicity - Oral</b>	LD50 (rat) 949 mg/kg for 2,4-D dimethylamine salt
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2000 mg/kg for 2,4-D dimethylamine salt
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >3.5 mg/l for 2,4-D dimethylamine salt
<b>Eye Irritation</b>	The product is an eye irritant.

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<b>Skin Irritation</b>	Not a skin irritant.
<b>Skin Sensitisation</b>	Prolonged and repeated skin contact may result in skin sensitisation.
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for 2,4-D for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 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 and Environmental Health, 'ADI List', June 2011).

## 12. ECOLOGICAL INFORMATION

<b>Other Precautions</b>	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
<b>Environ. Protection</b>	Spray drift can cause damage, read the label for more information.
<b>Acute Toxicity - Fish</b>	LC50 (96hr) for zebrafish is >1000 mg/l for the formulated product LC50 (96hr) for rainbow trout is 100 mg/l for 2,4-D dimethylamine salt
<b>Acute Toxicity - Daphnia</b>	LC50 (48hr) for daphnia is >1128 mg/l for the formulated product.
<b>Acute Toxicity - Other Organisms</b>	Birds: Not toxic to birds. LD50 for japanese quail is 400 mg/kg Bees: Not toxic to bees. LD50 94 µg/bee.

## 13. DISPOSAL CONSIDERATIONS

<b>Product Disposal</b>	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®).
<b>Container Disposal</b>	If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## 14. TRANSPORT INFORMATION

<b>Storage and Transport</b>	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
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## 15. REGULATORY INFORMATION

<b>Poisons Schedule</b>	S6
<b>Packaging &amp; Labelling</b>	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
<b>Hazard Category</b>	Harmful, Irritant
<b>AICS (Australia)</b>	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

## 16. OTHER INFORMATION

<b>Date of preparation or last revision of MSDS</b>	Revised 03/01/2012
<b>Contact Person/Point Revisions Highlighted</b>	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498 The MSDS was reviewed. Minor changes were made to the information. Product is now an S6 scheduled Poison. ...End Of MSDS...

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