

Infosafe No™ 3NU7J	Issue Date : November 2016	ISSUED by NUFARMNZ
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 Product Name **BATON®**

1. Identification

GHS Product Identifier	BATON®
Product Code	00825
Product Type	Herbicide
Company Name	Nufarm NZ
Address	6 Manu Street, Otahuhu Auckland 2024 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150 Fax: 0-9-270-4159
Emergency phone number	0800 651 911
Recommended use of the chemical and restrictions on use	Non-volatile 2,4-D soluble granules for broadleaf weed control in cereals and new and established pasture.
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	6.1D acute toxicant, 6.3B skin irritant, 6.9A target organ toxicant, 8.3A eye corrosive, 9.1B aquatic toxicant, 9.2A soil toxicant, 9.3B terrestrial vertebrate toxicant, TOXICITY Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause mild skin irritation. May cause organ damage from repeated oral exposure at high doses. CORROSIVE Danger - this product is corrosive and may cause eye damage. ECOTOXIC Toxic to aquatic organisms with long-lasting effects. Selective herbicide - very toxic to some plant species. Toxic to terrestrial vertebrates.
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3. Composition/information on ingredients

Chemical Characterization	Solid		
Ingredients	<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

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.

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First Aid Facilities	Remove contact lenses, if present and easy to do. Seek medical assistance even if there are no immediate symptoms. 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

Suitable extinguishing media	Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	May emit toxic fumes of hydrogen chloride, phosgene or amines if involved in fires or exposed to extreme heat.
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.
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. 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. If product has spilt from water soluble bags and 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 skin and eye contact and inhalation of spray mist or dust. APPROVED HANDLER: This product must be under the control of an approved handler if applied in a wide dispersive manner, or used by a commercial contractor. 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. Application to drains, ditches and irrigation channels must only be made when these waterways are dry and at least one month is allowed to elapse before the channels are used to carry water. The product is handled in a water soluble bag. Keep out of reach of children.
Conditions for safe storage, including any incompatibilities	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 BATON are subject to signage, and more than 1,000kg require emergency response plans.
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 exposure standards have been set for this product. WES TWA for 2,4-D(CAS 94-75-7) = 10 mg/m ³ WES TWA for Dimethylamine = 18 mg/m ³ and vapour = 10ppm
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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	Brown granular powder
Odour	Fish like odour
Melting Point	140°C (2,4-D acid)
Boiling Point	Not applicable
Solubility in Water	Soluble in water.
pH	6.5 - 7.5
Vapour Pressure	1.9 x 10 ⁻⁵ Pa (2,4-D acid, 25°C)
Partition Coefficient: n-octanol/water	Kow Log P is -1.01 (pH9, 25°C)
Density	>680kg/m ³
Flash Point	Not flammable
Flammability	Non combustible material.
Explosion Properties	Dust explosion possible if in powder or granular form, mixed with air.
Oxidising Properties	Not oxidising
Other Information	pKa is 2.77 (SG) Water Soluble Granule

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage.
Conditions to Avoid	Prolonged heating of the solid will slowly release dimethylamine.
Incompatible Materials	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.
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) 625 mg/kg for 2,4-D dimethylamine salt
Acute Toxicity - Dermal	LD50 (rat) 2,115 mg/kg for 2,4-D dimethylamine salt
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >3.5 mg/l for 2,4-D dimethylamine salt
Ingestion	Not a likely route of exposure. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.

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	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.
Inhalation	Not a likely route of exposure when handling the concentrate. Symptoms of exposure by inhalation are similar to those described for ingestion.
Skin	Prolonged contact with the concentrate may cause irritation. Prolonged contact with the concentrate may result in absorption of 2,4-D in harmful amounts.
Eye	Will irritate the eyes. Prolonged contact with the concentrate may cause damage to the eye.
Skin Sensitisation	Prolonged and repeated skin contact may result in skin sensitisation.
Carcinogenicity	The weight of the evidence is that 2,4-D is not carcinogenic.
Chronic Effects	Chronic Overexposure: Repeated absorption of relatively large amounts of 2,4-D presents a risk to the liver and kidneys.
Serious eye damage/irritation	Severe irritant
Skin corrosion/irritation	Not a skin irritant.
Other Information	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: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', December 2014).

12. Ecological information

Persistence and degradability	2,4-D dimethylamine salt is not rapidly degradable
Bioaccumulative Potential	2,4-D dimethylamine salt 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 zebrafish is >1000 mg/l for formulated product LC50 (96hr) for rainbow trout is 100 mg/l for 2,4-D dimethylamine salt
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is >1,128 mg/l for the formulated product.
Acute Toxicity - Algae	EC50 (5d) for Selenastrum capricornutum = 33.2 mg/l for 2,4-D. Chronic NOEC (14d) for duckweed = 0.27mg/L for 2,4-D dimethylamine salt
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. Oral LD50 bobwhite quail is 500mg/kg for 2,4-D dimethylamine salt Bees: Not toxic to bees. LD50 (contact) >100µg/bee, (oral) c. 94µg/bee for 2,4-D dimethylamine salt Plants: EC25(14d) mustard seedling is 0.00543mg/kg for 2,4-D dimethylamine salt

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. Burn in an appropriate incinerator if circumstances, such as wind direction, permit. Otherwise crush and bury in 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



Safety Data Sheet

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Product Name **BATON®**

UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (contains 2,4-D, 80%)
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	Do not carry this product on a passenger service vehicle. 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. P5070 See www.foodsafety.govt.nz for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR000366 See www.epa.govt.nz for approval controls.
Packaging & Labelling	HARMFUL * CORROSIVE - keep out of reach of children ECOTOXIC
Hazard Rating Systems	NFPA/HMIS: 3-1-1

16. Other Information

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 Highlighted	5 yearly review carried out. Various changes and updates made to document.
Other Information	Supersedes SDS issued November 2011 ...End Of MSDS...

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