

Infosafe No™ 3NUNN Issue Date : September 2016 ISSUED by NUFARMNZ

Product Name **EMBLEM® FLO**

1. Identification

GHS Product Identifier	EMBLEM® FLO
Product Code	00851
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 Fax: 0-9-270-4159
Emergency phone number	0800 651 911
Recommended use of the chemical and restrictions on use	Fast acting contact broadleaf herbicide for use in maize, sweetcorn and popcorn.
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, 6.5A respiratory sensitiser, 6.5B skin sensitiser, 6.8B reproductive or developmental toxicant, 6.9A target organ toxicant, 9.1A aquatic toxicant, 9.2A soil toxicant, 9.3B terrestrial vertebrate toxicant. TOXICITY Harmful-may be harmful if swallowed, inhaled or absorbed through the skin. Warning-may cause respiratory sensitisation. May cause sensitisation from prolonged skin contact. May cause reproductive/development damage from repeated oral exposure. Toxic-may cause liver damage from repeated oral exposure at high doses. ECOTOXIC Very toxic to aquatic organisms with long-lasting effects. Toxic to terrestrial vertebrates. Selective herbicide-very toxic to some plant species.
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3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	Name	CAS	Proportion
	Bromoxynil (present as butyrate ester)	3861-41-4	250-500 g/L
	Bromoxynil	1689-84-5	1-10 g/L
	Bromoxynil (present as the octanoate ester)	1689-99-2	1-10 g/L
	Ingredients determined not to be hazardous	-	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.

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Eye contact	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance even if there are no immediate symptoms.
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

Suitable extinguishing media	Water fog, foam, carbon dioxide or dry chemical.
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. 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. Wash area with water and absorb with further inert material and collect in sealable container for disposal.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	Prevent from entering drains, waterways or sewers. 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 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. 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, pesticides and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100L of EMBLEM FLO require secondary containment and are subject to signage, and more than 100L require emergency response plans.
Other Information	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 limits (WES, TEL or EEL's) have been specifically assigned for this product. The following ADE and PDE values have been set for bromoxynil butyrate: ADE = 0.01 mg/kg bw/day PDE food = 0.007 mg/kg bw/day PDE water = 0.002 mg/kg bw/day PDE other = 0.001 mg/kg bw/day
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Appropriate engineering controls	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 PVC or rubber apron, elbow length PVC gloves, faceshield or safety goggles, a NIOSH approved half face mask with organic vapour cartridge + dust/mist prefilter, 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	Liquid
Appearance	Beige
Solubility in Water	Disperses in water.
Specific Gravity	1.245
pH	3.5 - 4.5 (1% in water)
Other Information	(SC) Suspension Concentrate

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage. Not an oxidiser.
Hazardous Decomposition Products	Thermal decomposition may yield oxides of carbon and nitrogen, and bromhydric acid.
Hazardous Polymerization	Not known to occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 116.4mg/kg bw for bromoxynil butyrate
Acute Toxicity - Dermal	LD50 (rat): >2,000mg/kg bw for bromoxynil butyrate
Acute Toxicity - Inhalation	LC50 (rat): 1.216mg/L for bromoxynil butyrate
Skin Sensitisation	Contact sensitiser Respiratory sensitiser
Reproductive Toxicity	Possible risk of harm to the unborn child.
Chronic Effects	May cause damage to the liver from repeated oral exposure.
Serious eye damage/irritation	Mild irritant

12. Ecological information

Persistence and degradability	Bromoxynil butyrate is not persistent in water or soil. Hydrolysis: DT50 = 13d, pH7. Photolysis: DT50 = 0.25d, pH4. Soil: DT50 = 8d, field.
Acute Toxicity - Fish	LC50 (96h) = 0.032mg/L for bromoxynil butyrate
Acute Toxicity - Daphnia	EC50 (48h) = 0.208mg/L for bromoxynil butyrate NOEC (21d) = >0.026mg/L bromoxynil butyrate (long term)
Acute Toxicity - Algae	EC50 (72h) = 0.75mg/L for bromoxynil butyrate
Acute Toxicity - Other Organisms	Aquatic plants: EC50 (7d) = 0.13mg/L for bromoxynil butyrate Bobwhite Quail: LD50 = 420mg/kg bw for bromoxynil butyrate Mallard Duck: LD50 = 1,230mg/kg bw for bromoxynil butyrate

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 the spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

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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. - (bromoxynil, 40.2%)
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. P8362 See www.foodsafety.govt.nz for registration conditions
Packaging & Labelling	Approved pursuant to the HSNO Act 1996, Approval Code HSR100575 See www.epa.govt.nz for approval controls.
Hazard Rating Systems	TOXIC * ECOTOXIC - keep out of reach of children NFPA/HMIS: 1-1-0

16. Other Information

Date of preparation or last revision of SDS	September 2011
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 5 Yearly review carried out. Minor changes made in the SDS.
Revisions Highlighted	
Other Information	Supersedes SDS issued September 2011 ...End Of MSDS...

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