

Infosafe No™ 3NUFM	Issue Date : April 2013	ISSUED by NUFARM
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 Product Name **Comet 400 Herbicide**

Classified as hazardous

1. Identification

GHS Product Identifier	Comet 400 Herbicide
Product Code	0875
Product Type	Group I 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 control of a wide range of broadleaf weeds in fallow, lucerne, maize, millets, pastures, poppies, sorghum, sugar cane, sweetcorn and winter cereals. Also for the control of woody weeds in agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights of way, as specified in the Directions for Use table on the label.
Other Information	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. Hazard Identification

GHS classification of the substance/mixture	Toxic to Reproduction: Category 1 Eye Damage/Irritation: Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	May damage fertility or the unborn child. Causes serious eye damage.
Pictogram (s)	Corrosion, Health hazard
	 
Precautionary statement – Prevention	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Do not handle until all safety precautions have been read and understood. Wear eye and face protection. Use personal protective equipment as required.
Precautionary statement – Response	IF exposed or concerned: Get medical advice/attention. 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.
Other Information	Poisons Schedule S5

3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Fluroxypyr (present as the methylheptyl ester)	81406-37-3	400 g/L
	Liquid Hydrocarbons	64742-94-5	316 g/L
	N-Methyl-2-pyrrolidone	872-50-4	100 g/L
	Other non-hazardous ingredients		Balance

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4. First-aid measures

Inhalation	Remove affected person to fresh air until recovered.
Ingestion	Rinse mouth and then drink plenty of water. Do not give anything by mouth to a semi-conscious or unconscious person. If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
Skin	Remove contaminated clothing and wash before re-use. Wash affected areas thoroughly with soap and water. If irritation persists, seek medical advice.
Eye contact	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor	Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

5. Fire-fighting measures

Suitable extinguishing media	Water fog, foam, carbon dioxide or dry chemical. Avoid using large volumes of water which would spread the product.
Hazards from Combustion	May emit toxic fumes of hydrogen chloride, hydrogen fluoride or phosgene if involved in fires or exposed to extreme heat.
Special Protective Equipment for fire fighters	Breathable air apparatus should be worn when fighting a fire in which this product is involved.

6. Accidental release measures

Spills & Disposal	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Clean-up Methods - Large Spillages	Place damaged containers in recovery bins (if available) and return to manufacturer. If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.
Environmental Precautions	This product is a herbicide and spills can damage crops, pastures and desirable vegetation. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

7. Handling and storage

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	See label for detailed information on cleaning of spray equipment.
Other Information	This product may be damaging to susceptible crops during growing and dormant periods. Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Occupational exposure limit values	Safe Work Australia has set the following exposure standard for N-Methyl Pyrrolidone : TLV (TWA) 103 mg/m ³ , STEL 309 mg/m ³ . SK 'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. The manufacturer of the solvent has recommended an occupational exposure
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Appropriate engineering controls	limit of 100 mg/m ³ ; 15ppm TWA, as total hydrocarbon.
Personal Protective Equipment	Use in a well ventilated area only. No special ventilation required.
Hygiene Measures	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.
Requirements Concerning Special Training	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. 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

Form	Liquid
Appearance	Amber liquid
Odour	Typical solvent odour.
Boiling Point	~200°C (solvent)
Solubility in Water	Disperses in water.
Specific Gravity	1.136
pH	5 (1% solution)
Vapour Pressure	0.02 mPa @ 20°C
Volatile Component	30%
Partition Coefficient: n-octanol/water	Kow Log P is 4.53 (pH5)
Flash Point	105°C
Flammability	Combustible liquid C1. (AS1940) Combustible Liquid (GHS).

10. Stability and reactivity

Chemical Stability	Stable under normal conditions. Hydrolyses at pH >9.
Possibility of hazardous reactions	Keep away from strong oxidising agents.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat) >2000 mg/kg for fluroxypyr methyl heptyl ester
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for fluroxypyr methyl heptyl ester
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >1.0 mg/l for fluroxypyr methyl heptyl ester (highest attainable concentration)
Ingestion	Ingestion of the concentrate in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.
Inhalation	When applying the product as a spray avoid breathing in spray mist. High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.
Skin	Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
Eye	Will irritate the eyes. Prolonged contact with the concentrate may cause damage to the eye.
Skin Sensitisation	Product is not a skin sensitiser.
Reproductive Toxicity	Evidence from animal studies suggests the potential for developmental toxicity on repeated or prolonged exposure to N-Methyl pyrrolidone (NMP).

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Chronic Effects	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Serious eye damage/irritation	The product is an eye irritant.
Skin corrosion/irritation	The product is a skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for fluroxypyr for a human is 0.2 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 20 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', June 2012).

12. Ecological information

Persistence and degradability	Half life in soil is typically 153 days.
Environmental Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	The following is data for a similar product. LC50 (96hr) for rainbow trout is 3.5 mg/l
Acute Toxicity - Daphnia	EC50 (48hr) for daphnia is 0.8 mg/l for a formulated product of lower concentration.
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for mallard ducks and bobwhite quail is >2000 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 inner bladder or 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. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. DO NOT burn empty containers or product.

14. Transport information

Storage and Transport	Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.
UN Number (Sea Transport)	For bulk shipments as Class 9, use UN 3082, HazChem code 2X. 3082
IMO Class/Packing Group	Class 9; Packing Group III

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IMO Marine Pollutant	Marine Pollutant
IMO Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Fluroxypyr meptyl)

15. Regulatory information

Poisons Schedule	S5
Hazard Category	Harmful, Irritant
Other Information	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 61667.

16. Other Information

Date of preparation or last revision of SDS	Reviewed 22/04/2013 This SDS replaces document dated November 2012.
Literature References	Review report for the active substance Fluroxypyr 6848/VI/98 - final European Commission - Directorate General Health & Consumer Protection 15 December 1999.
Contact Person/Point	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted	The MSDS was reviewed. Minor changes were made to the information. Section 2 - Hazard phrases updated. ...End Of MSDS...

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