



Material Safety Data Sheet

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Infosafe No. 3NUFM Issue Date : June 2007 ISSUED by NUFARM

Product Name : **Comet 400 Herbicide**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name 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
Emergency Tel. 1800 033 498 (24hr Australia)
Telephone/Fax Number Tel: +61 3 9282-1000
Fax: +61 3 9282-1001
Recommended 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. HAZARDS IDENTIFICATION

Hazard Classification HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) R36/38 Irritating to eyes and skin.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness and cracking.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S37/39 Wear suitable gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	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

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.



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Skin Remove contaminated clothing and wash before re-use. Wash affected areas thoroughly with soap and water.
If irritation persists, seek medical advice.

Eye 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.

Hazards from Combustion Products Avoid using large volumes of water which would spread the product.
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 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 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

National Exposure Standards NOHSC has set the following exposure standard for N-Methyl Pyrrolidone : TLV (TWA) 103 mg/m³, STEL 309 mg/m³. 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 limit of 100 mg/m³; 15ppm TWA, as total hydrocarbon.

Engineering Controls Use in a well ventilated area only. No special ventilation required.

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.

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.



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Requirements Concerning Special Training NSW regulations require that people who use pesticides in their job or business must 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 1.122
Vapour Pressure 0.02 mPa @ 20°C
Volatile Component 30%
Octanol/Water Partition Coefficient Kow Log P is 4.53 (pH5)
Flammability Combustible liquid C1.

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

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.
Ingestion Ingestion of the concentrate in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.
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.
Chronic Effects Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
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)
Eye Irritation The product is an eye irritant.
Skin Irritation The product is a skin irritant.
Skin Sensitisation Product is not a skin sensitiser.
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, 'ADI List', TGA, September 2006).

12. ECOLOGICAL INFORMATION

Persistence / Degradability Half life in soil is typically 153 days.



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Environ. Protection Spray drift can cause damage, read the label for more information.

Acute Toxicity - Fish The following is data for a similar product.
LC50 (96 hr) 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 rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local 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. If recycling, replace cap and return clean containers to recycler or designated collection point. 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. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

14. TRANSPORT INFORMATION

Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

UN Number (Sea Transport) 3082

IMO Class/Packing Group Class 9; Packing Group III

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

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

Hazard Category Harmful, Irritant

AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: +61 3 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498



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Literature References	Review report for the active substance Fluroxypyr 6848/VI/98 - final European Commission - Directorate General Health & Consumer Protection 15 December 1999.
Revisions	First Issue
Highlighted	...End Of MSDS...