



Infosafe No™ 3NU2C

Issue Date :November 2009

ISSUED by NUFARM

CS: 1.4.21

Product Name **FENITROTHION 1000 Insecticide**

Classified as hazardous

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name</b>	FENITROTHION 1000 Insecticide
<b>Product Code</b>	1200
<b>Product Type</b>	Group 1B Insecticide
<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 various insects pests crops and pastures as per the Directions of Use Table.
<b>Other Information</b>	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. 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 R10 Flammable. R22 Harmful if swallowed. R36 Irritating to eyes.
<b>Safety Phrase(s)</b>	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children.
<b>Other Information</b>	Poisons Schedule S6

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical Characterization</b>	Liquid												
<b>Ingredients</b>	<table><thead><tr><th><u>Name</u></th><th><u>CAS</u></th><th><u>Proportion</u></th></tr></thead><tbody><tr><td>Fenitrothion</td><td>122-14-5</td><td>1000 g/L</td></tr><tr><td>Mixed proprietary surfactants</td><td>Mixture</td><td>100-200 g/L</td></tr><tr><td>Xylene</td><td>1330-20-7</td><td>50-100 g/L</td></tr></tbody></table>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	Fenitrothion	122-14-5	1000 g/L	Mixed proprietary surfactants	Mixture	100-200 g/L	Xylene	1330-20-7	50-100 g/L
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Xylene	1330-20-7	50-100 g/L											

## 4. FIRST AID MEASURES

<b>Inhalation</b>	Remove patient to fresh air and, if required, give one atropine tablet every five minutes until dryness of the mouth occurs.
<b>Ingestion</b>	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. The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 1 teaspoon) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.



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<b>Skin</b>	Remove contaminated clothing and laundry before re-use. Wash affected areas thoroughly with soap and water.
<b>Eye</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
<b>First Aid Facilities</b>	Seek medical advice if irritation develops or persists. If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26. If fenitrothion is regularly used, it may be wise to keep a supply of atropine tablets (0.6 mg) (check State Regulations).
<b>Advice to Doctor</b>	An anticholinesterase compound. If the material is dissolved in solvents, e.g., petroleum solvents, vomiting may cause pulmonary aspiration. Instead, the stomach should be emptied as soon as possible by careful gastric lavage (using a cuffed endotracheal tube already in place). Artificial respiration should be started at the first sign of respiratory failure. Cautious administration of fluids is advised, as well as general supportive and symptomatic pharmacological treatment and absolute rest. As early as possible, administer 2 mg of atropine sulfate i.v. and 1000-2000 mg of pralidoxime chloride or 250 mg of obidoxime chloride (adult dose) i.v. to patients suffering from severe respiratory difficulties, convulsions, and unconsciousness. Repeated doses of 2 mg of atropine sulfate should be given, as required, based on the respiration, blood pressure, pulse frequency, salivation, and convulsion conditions. The dose and the frequency of atropine varies with each patient, but the patient should remain fully atropinised (signs include dilated pupils, dry mouth, skin flushing). Diazepam should be given in all but the mildest cases in doses of 10 mg, s.c. or i.v., which may be repeated as required. For children, the doses are 0.04-0.08 mg of atropine/kg body weight, 250 mg of pralidoxime chloride per child, or 4-8 mg of obidoxime chloride/kg body weight. Morphine, barbiturates, phenothiazine derivatives, tranquillizers, and all kinds of central stimulants are contraindicated.

## 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Water, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	If involved in a major fire, could evolve oxides of sulphur or phosphorous.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
<b>Hazchem Code</b>	2W
<b>Emergency Action in case of Fire</b>	If exposed to fire, keep container cool by spraying with water.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spills &amp; Disposal</b>	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. Dispose of at a landfill in accordance with local regulations. Dilute caustic soda or soda ash or lime for final clean up ONLY.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Clean-up Methods - Large Spillages</b>	Place damaged containers in recovery bins (if available) and return to manufacturer.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers.

## 7. HANDLING AND STORAGE

<b>Conditions for Safe Storage</b>	Store in the closed, original container in a cool, well ventilated area. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
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Infosafe No™ 3NU2C Issue Date : November 2009 ISSUED by NUFARM CS: 1.4.21

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**Other Information** Do not store for prolonged periods in direct sunlight.  
Always read the label and any attached leaflet before use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards</b>	No biological exposure limit allocated. No exposure standards have been set for this product. NOHSC has set the following exposure standard for Xylene : TLV (TWA) 350 mg/m <sup>3</sup> , STEL 655 mg/m <sup>3</sup> .
<b>Engineering Controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate. The vapour concentration of the solvent can exceed the statutory limits for workplaces. The flashpoint of the product is 34°C, therefore on hot days vapour can build up in confined spaces and may track some distance to an ignition source.
<b>Respiratory Protection</b>	If exposure to vapour or spray is expected, a half face respirator with cartridge type A is recommended.
<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. When using in enclosed areas, wear goggles and half face piece respirator with combined dust and gas cartridge.
<b>Hygiene Measures</b>	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
<b>Requirements Concerning Special Training</b>	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

<b>Form</b>	Liquid
<b>Appearance</b>	Clear, amber liquid
<b>Odour</b>	Characteristic odour
<b>Melting Point</b>	<0°C
<b>Boiling Point</b>	138°C for solvent. Fenitrothion decomposes at >140°C
<b>Solubility in Water</b>	Disperses in water. Not soluble.
<b>Specific Gravity</b>	1.24 @ 20°C
<b>pH Value</b>	Neutral
<b>Vapour Pressure</b>	18mPa @ 20°C for fenitrothion
<b>Vapour Density (Air=1)</b>	3.2
<b>Volatile Component</b>	approx 10%
<b>Flash Point</b>	34°C (c.c.)
<b>Flammability</b>	Flammable.
<b>Auto-Ignition Temperature</b>	~480°C
<b>Flammable Limits - Lower</b>	Lower 1.2
<b>Flammable Limits - Upper</b>	Upper 7.1

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Incompatible Materials</b>	Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime.
<b>Hazardous Reactions</b>	Keep away from strong oxidising agents.



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**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.

**Inhalation** Not a likely route of exposure when handling the concentrate. When applying the product as a spray avoid breathing in spray mist.

**Ingestion** The concentrate is harmful if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.

**Skin** Readily absorbed even through unbroken skin and considered the most dangerous toxic route. Negligible damage to skin is expected to occur especially when related to the hazard from absorption.

**Eye** Will cause irritation, and absorption into the body system may also be significant.

**Chronic Effects** Regular exposure may result in lowering of cholinesterase activity which will recover within a few days after exposure ceases.

**Acute Toxicity - Oral** LD50 (rat) 330 mg/kg for fenitrothion

**Acute Toxicity - Dermal** LD50 (rat) 890 mg/kg for fenitrothion

**Skin Irritation** Not a skin irritant.

**Skin Sensitisation** Product is not a skin sensitiser.

**Human Effects** Acute Over Exposure: It should be noted that fenitrothion is a compound of relatively low mammalian toxicity. Exposure to excessive amounts could cause intestinal cramps, tightness of the chest, blurred vision, headache, diarrhea, salivation and convulsions. Difficulty in breathing may be experienced, due either to congestion of the lungs or weakness of the respiratory muscles. In very severe cases of poisoning, muscle spasm, unconsciousness and convulsions may develop and death may result from respiratory failure.

**Other Information** The Australian Acceptable Daily Intake (ADI) for fenitrothion for a human is 0.002 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.2 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', December 2008).

## 12. ECOLOGICAL INFORMATION

**Persistence / Degradability** Average field half life of fenitrothion is 2.7 days.

**Known Harmful Effects on the Environment** The product is a marine pollutant for sea transport. Fenitrothion is toxic to fish.

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

**Acute Toxicity - Fish** The following is data for the active ingredient, fenitrothion. LC50 (96hr) for rainbow trout is 1.3 mg/l.

**Acute Toxicity - Daphnia** EC50 (48hr) for daphnia magna is 0.0086 mg/l.

**Acute Toxicity - Other Organisms** Bees: Toxic to bees. LD50 0.16 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.



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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.

## 14. TRANSPORT INFORMATION

<b>U.N. Number</b>	3017
<b>Proper Shipping Name</b>	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE - (Fenitrothion)
<b>DG Class</b>	6.1
<b>Sub.Risk</b>	3
<b>Hazchem Code</b>	2W
<b>Packaging Method</b>	3.8.6
<b>Packing Group</b>	III
<b>Storage and Transport</b>	Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
<b>EPG Number</b>	6C3
<b>IERG Number</b>	17
<b>UN Number (Sea Transport)</b>	3017
<b>IMO Marine Pollutant</b>	Marine Pollutant
<b>IMO Proper Shipping Name</b>	ORGANOPHOSPHORUS PESTICIDES, LIQUID, TOXIC, PLAMMABLE, N.O.S. (contains Fenitrothion)

## 15. REGULATORY INFORMATION

<b>Poisons Schedule</b>	S6
<b>National and or International Regulatory Information</b>	There is a legislative requirement in most States in Australia for workers to be medically monitored when using organophosphates, by:- 'estimation of red cell and plasma cholinesterase acivity towards the end of the day on which organophosphates have been used'. Ref: Control of Workplace Hazardous Substances, NOHSC:1005.
<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 19/11/2009
<b>Contact Person/Point</b>	Normal Hours: Mr Volker Maier Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
<b>Revisions Highlighted</b>	The MSDS was reviewed. Changes made to sections: 14 - HazChem code changed to 2W. ...End Of MSDS...



# Material Safety Data Sheet

CS: 1.4.21

Page: 6 of 6

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