

MATERIAL SAFETY DATA SHEET

Company Details

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Hazardous according to the criteria of Worksafe Australia.

I IDENTIFICATION

Product Name: Farmoz Fenitrothion 1000

Other Names: Proper Shipping Name is ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE

Product Code: None.

UN No: 3017

Hazchem Code: 3W

Dangerous Goods Class: 6.1 Toxic Substances.

Sub Risk Class: 3 Flammable liquids.

Packaging Group: III

Most EPGs may now be substituted by the Initial Emergency Response Guide, available from Standards Australia.

Poison Schedule: S6

Chemical Family: Organophosphorus pesticide.

Uses: Controls certain grain pests in stored cereal grains, in lucerne, cereal crops and pastures.

Physical Appearance & Properties

Appearance & Odour: Pale yellow oily liquid. Characteristic odour.

Melting/softening point: No specific data. Liquid at normal temperatures.

Boiling point and vapour pressure: 164°C at 1mm Hg

Volatile materials: No specific data. Expected to be low at 100°C.

Flashpoint: 45-50°C approx.

Specific gravity: 1.2 - 1.3 at 25°C

Solubility in water: Forms emulsions.

Corrosiveness: Not corrosive.

Ingredients

Chemical Entity	CAS No	Proportion, %	Worksafe Exposure Limits	
			TWA, mg/m ³	STEL, mg/m ³
Fenitrothion	122-14-5	80	not set	not set
Cyclohexanone	108-94-1	10	100	not set
Other non hazardous ingredients	secret	10	not set	not set

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

II HEALTH HAZARD DATA

Health Effects:

No specific data is available for the product for chronic exposure symptoms. The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995). Repeated minor exposure may have a cumulative poisoning effect. Chronic symptoms in humans include: general malaise, fatigue, headache, loss of memory and ability to concentrate, anorexia, nausea, thirst, loss of weight, cramps, muscular weakness and tremors. Fenitrothion at sufficient dosage produces typical cholinergic poisoning.

Acute Effects:

Product is poisonous if absorbed by skin contact, inhaled or swallowed. Avoid contact with eyes and skin and do not inhale spray mist.

Action on Human System: Degrades acetylcholinesterase (an enzyme) in the tissues.

Signs and symptoms associated with mild exposures to organophosphate insecticides include: headache, fatigue, dizziness, loss of appetite with nausea, stomach cramps and diarrhea; blurred vision associated with excessive tearing; contracted pupils of the eye; excessive sweating and salivation; slowed heartbeat, (often fewer than 50 per

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minute); rippling of surface muscles just under the skin. These symptoms may be mistaken for those of flu, heat stroke or heat exhaustion, or upset stomach.

Moderately severe organophosphate poisoning cases exhibit all the signs and symptoms found in mild poisonings, but in addition, the victim: is unable to walk; often complains of chest discomfort and tightness; exhibits marked constriction of the pupils (pinpoint pupils); exhibits muscle twitching; has involuntary urination and bowel movement. Severe poisonings are indicated by incontinence, unconsciousness and seizures.

Swallowed: Data suggests that this product is toxic if swallowed. Ingestion of small quantities may cause harm and larger quantities may lead to death.

Eye: This product is mildly irritating to the eyes. It is likely to cause mild discomfort such as watering and redness of the eyes. However, this should quickly disappear once exposure is over.

Skin: Data suggests that this product may be absorbed through the skin and be harmful by skin absorption. Major skin exposure may lead to health problems.

Inhalation: Data indicates that this product is mildly irritating if inhaled. Likely to cause minor discomfort to throat and lungs and/or coughing which should quickly disappear once exposure has ceased.

For Fenitrothion:

LD₅₀ Oral (Rat) = 250-800mg/kg

LD₅₀ Dermal (Rat) >850-2500mg/kg

LD₅₀ Dermal (Mouse) >3000mg/kg

LC₅₀ Inhalation (Rat) = 5.0mg/L/4hr

First Aid:

Atropine tablets 0.6mg should be available in the area where this product is used, or in a nearby unlocked medicine cabinet.

Safety deluge showers should be provided where this product is being used.

If poisoning occurs, contact a Doctor or Poisons Information Centre.

If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs - if poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly.

Eyes: If product gets in eyes, wash material from them with running water. If they begin watering or reddening, take special care in washing thoroughly.

Skin: If product gets on skin, immediately remove contaminated clothing and wash skin thoroughly with soap and water to remove material. If you begin to feel unwell, seek medical attention.

Inhalation: If vapours or mists have been inhaled, and irritation or unusual symptoms have developed, remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

Advice to Doctor: This product contains a cholinesterase inhibitor. Atropine treatment may be required or treat with up to 10mg of IV diazepam. Curare therapy is contraindicated. Treat pulmonary pneumonitis secondary to pulmonary oedema. Do not give adrenergic amines, aminophylline, succinylcholine, phenothiazines or reserpine alkaloids or oils.

III PRECAUTIONS FOR USE

Risk Phrases are: R10, R21, R25. Flammable. Harmful in contact with skin. Toxic if swallowed.

Exposure Standards:

A time weighted average (TWA) has been established for Cyclohexanone, present in significant quantities in this product. This value is 100mg/m³. The corresponding STEL level is "not set". The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. See ingredients section on page 1 of this data sheet. The ADI (Acceptable Daily Intake) for Fenitrothion is set at 0.003mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 0.3mg/kg/day. Values taken from Australian ADI List, May 1995.

Engineering Controls:

In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.

Personal Protection:

Obtain an emergency supply of atropine tablets 0.6mg. When opening the container and preparing spray or using the prepared spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow length PVC gloves and face shield. When using in enclosed areas wear goggles and half-face respirator with combined dust and gas cartridge

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or canister .If product gets on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shields, goggles and respirator or face piece and contaminated clothing.

IV SAFE HANDLING INFORMATION

Safety Phrases are: S16, S20, S24, S36. Keep away from sources of ignition - No smoking. When using, do not eat or drink. Avoid contact with skin. Wear suitable protective clothing.

Storage & Transport

This product is classed as UN3017, Dangerous Goods Class 6.1 Toxic Substances. Proper Shipping name is ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE. Class 6 Toxic Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids where the Flammable Liquid is nitromethane), 5.1 (Oxidising Agents where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides where the Toxic Substances are Fire Risk Substances), 8 (Corrosive Substances where the Toxic Substances are cyanides and the Corrosives are acids), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes, 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Toxic Gases), 3 (Flammable liquids, except where the flammable liquid is nitromethane), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents except where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides except where the Toxic Substances are Fire Risk Substances), 7 (Radioactive Substances), 8 (Corrosive Substances except where the Toxic Substances are cyanides and the Corrosives are acids), 9 (Miscellaneous Dangerous Goods)

This product is a S6 Poison. Observe all relevant regulations regarding sale, transport and storage of this class of product. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure that the product does not come into contact with substances listed under "Materials to avoid" below.

Spills & Disposals

In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including face mask, face shield, gauntlets and self contained breathing apparatus. See above under Personal Protection regarding Australian Standards relating to personal protective equipment. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Dispose of only in accord with all regulations. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Fire & Explosion Hazard

There is a moderate risk of an explosion from this product if it is involved in a fire. Firefighters should take care and appropriate precautions.

Flashpoint: 45-50°C approx.

Flammability limits: No data.

Extinguishing Media: carbon dioxide, dry chemical, foam, water fog. Foam is the preferred medium for large fires.

Special Fire Fighting procedures: If a significant quantity of this product is involved in a fire, call the fire brigade.

Immediately evacuate the area of unnecessary personnel. When fighting fires involving significant quantities of this product, wear safety boots, non-flammable overalls, gloves, hat, goggles and self contained breathing apparatus. All skin areas should be covered. Ensure that no spillage enters drains or water courses.

Unusual Fire & Explosion Hazards: Fire decomposition products from this product may form toxic and corrosive mixtures in confined spaces. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Stability: This product is unlikely to spontaneously decompose.

Polymerisation: This product is unlikely to spontaneously polymerise.

Decomposition Products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen, and under some circumstances, oxides of nitrogen. Oxides of sulfur. Oxides of phosphorus. Water.

Materials to avoid: strong oxidising agents.

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V OTHER INFORMATION

This MSDS is prepared in accord with the Worksafe Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets", 1994.

Contact Points:

Call Farnoz on (02)9363 3611

Fax: (02)9363 5977

Ask for Russel Brown, Technical Manager.

Police and Fire Brigade: Dial 000

**If ineffective: Dial Poisons Information Centre
(13 1126 from anywhere in Australia)**

The information contained in this Material Safety Data Sheet is provided in good faith and is believed to be correct at the date hereof. However, it is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. Farnoz Pty Ltd makes no representation as to the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability whatsoever, whether with respect to negligence or otherwise, for any loss or damage arising from or connection with the supply or use of the information in this Material Safety Data Sheet.

Please read all labels carefully before using product.

Prepared by Kilford & Kilford Pty Ltd, June, 1998

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