

**MATERIAL SAFETY DATA SHEET****A18037/10/AUS****TIGUVON SPOT-ON CATTLE LICE INSECTICIDE****SECTION 1 – IDENTIFICATION, CONTACTS**

Bayer Australia Ltd
875 Pacific Highway
Pymble NSW 2073

Emergency Telephone Number

1800 033 111

24 hour Emergency Service Australia Wide, Toll Free

Contact Point (for non-emergency calls)

Animal Health Division

Telephone Number: (02) 9391-6000

Product Name Tiguvon Spot-on Cattle Lice Insecticide

Product Use Spot-on insecticide for control of lice on cattle.

Other Names Fenthion, dipropylene glycol methyl ether

Creation Date 20th June 2003

Revision Date 31st May 2012

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification HAZARDOUS SUBSTANCE
DANGEROUS GOODS

Risk Phrases Harmful swallowed.

Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

Safety Phrases Keep locked up and out of reach of children. Wear suitable protective clothing and gloves. In case of accident, or if you feel unwell, seek medical advice immediately (show the label whenever possible).

This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/ safety data sheet.

THIS LABELLING IS NOT REQUIRED FOR PRODUCTS IN PACKAGES INTENDED FOR END USERS.

SECTION 3 – COMPOSITION		
Ingredients	CAS No	Proportion
Fenthion*	55-38-9	20%
Dipropylene glycol methyl ether	34590-94-8	>60%
Other ingredients determined not to be hazardous	-	<1%
*Fenthion is an organophosphorus compound: 3-methyl-4-methylthiophenyl dimethyl phosphorothionate		

SECTION 4 – FIRST AID MEASURES	
Label Regulated First Aid Statement	If swallowed, splashed on skin or in eyes, or inhaled, contact a Poisons Information Centre, Phone Australia 131126 or a doctor at once. Remove any contaminated clothing and wash skin thoroughly. If swallowed, activated charcoal may be advised. Give atropine if instructed.
General	No adverse effects are expected if this product is used in accordance with the label. Most cases of organophosphate poisoning result from skin absorption due to inadequate protection during preparation or use. Organophosphates act by inhibiting cholinesterase. Some symptoms of overexposure that can arise if the product is mishandled are: <u>Mild</u>: headache, blurred vision, weakness, giddiness, sweating, mild chest pain, nausea and vomiting. <u>Severe</u>: cyanosis, muscular twitching, spasms, miosis and respiratory paralysis. <u>Swallowed</u>: ingestion of the product can lead to poisoning. <u>Skin</u>: can be absorbed through skin. May irritate the skin. <u>Eyes</u>: may irritate the eyes. Remove victim from contaminated area. If there is a risk of unconsciousness, position and transport in a stable lateral position. Remove soiled or soaked clothing immediately.
Scheduled Poisons	Poisons Information Centres in each State capital city can provide additional assistance for scheduled poisons. Phone 131126.
Inhalation	Harmful by inhalation. In this event remove from exposure and perform artificial respiration if necessary.
Skin contact	Remove contaminated clothing. Wash affected area immediately with soap and water. Seek medical attention if required.
Eye contact	Flush eye immediately with large amounts of water or normal saline, occasionally lifting eyelids, until no evidence of chemical remains. Seek medical attention if eye irritation persists.
Ingestion	If vomiting occurs keep head lower than hips to help prevent aspiration. Seek medical attention if required.

Advice to doctor	Apply basic aid and decontamination procedures. Treat symptomatically and if necessary apply artificial respiration and administer antidote. Antidote: Atropine sulfate at 5-10 minute intervals until dryness of the mouth occurs. This will relieve the muscarinic effects. Atropine should not be given to a cyanosed patient. In cases of severe poisoning (respiratory depression and muscle twitching) administer pralidoxime (preferably less than 48 hours after exposure) to relieve the nicotinic effects.
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SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media	Sprayed water jet, foam, dry powder, CO ₂ , sand.
Fire and Explosion Hazards	Combustible product. Flash point 85°C
Hazardous Combustion Products	Thermal decomposition products include carbon monoxide, phosphorus pentoxide, and sulphur dioxide.
Fire Fighting	Fight fire in the early stages if safe to do so. Wear respiratory protection. In well ventilated areas wear full face mask with a combination filter. (Offers no protection from carbon monoxide) In enclosed premises: respirator with independent air supply. Contain firefighting water.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Accidental Release	Use any personal protective equipment listed in Chapter 8. Prevent spillage from spreading or entering waterways and underground drains. Work from up-wind side of spill. Stop leaks if possible. Take up with absorbent material such as sawdust, peat or chemical binding agent. Fill material along with any contaminated soil etc. into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable drum. Spread hydrated lime over the affected area. On completion of clean-up remove and wash all protective clothing and equipment with detergent and water. Do not eat, drink or smoke during clean-up operation.
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SECTION 7 – HANDLING AND STORAGE

Safe Handling	Product is designed to be administered via closed handling systems, eg dosing guns and auto measure devices. Use this equipment when applying. Suitable container materials: HDPE, LDPE, polypropylene, stainless steel.
Storage	Keep out of reach of children. Store away from food, drink or animal feeding stuffs. Store below 30°C. Keep away from heat or moisture. Make provision for product and fire-fighting water to be retained. This material is a Schedule 6 poison and must be stored, handled and used in accordance with the relevant regulations.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	ES-TWA Fenthion 0.2 mg/m ³ (NOHSC) ES-MAK Fenthion 0.2 mg/m ³ (TRGS 900) ES-TWA Dipropylene glycol methyl ether 606 mg/m ³ (ACIGH) ES-MAK Dipropylene glycol methyl ether 300 mg/m ³ (500 ppm) (TRGS 900) No standards allocated for other ingredients in this formulation.
Ventilation	Ensure adequate ventilation when handling and applying the product to prevent inhalation of vapour. Do not inhale vapour.
Eye Protection	May irritate the eyes. Avoid contact with eyes. If product in eyes, wash out immediately with water.
Skin Protection	The product is poisonous if absorbed by skin contact, inhaled or swallowed. . Avoid contact with eyes and skin. Do not inhale the vapour. When using the product wear elbow-length PVC gloves. If spilled 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 and contaminated clothing.
Respirator	No respirator is required during normal conditions of use. However if vapour exposure is likely, wear a respirator with a vapour cartridge.
Protective Material Types	PVC
General Advice	Do not eat, drink or smoke while treating. Avoid contact with the eyes, skin and clothing. The product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

Physical State	Clear liquid
Colour	Blue
Odour	Slight characteristic smell

Boiling Point	186-188°C
Melting point	Not applicable
Density	1.002 kg/L
Vapour Pressure	1.4 mPa at 25°C (fenthion)
Viscosity	Not available
Solubility in Water	Partially miscible
pH	6-7 at 10% in water
Flash Point	Approx 85°C
Ignition Temperature	Not available
Explosive Limits	Not available
Other Information	Product is packed in 500 ml and 2.25 litre plastic containers and 10 litre steel drums.

SECTION 10 – STABILITY & REACTIVITY

Chemical Stability	Product is stable. No hazardous reactions.
Conditions to Avoid	Avoid oxidising agents.
Incompatible Materials	None
Hazardous Decomposition	Thermal decomposition products include carbon monoxide, phosphorus pentoxide, and sulphur dioxide.
Hazardous Reactions	Will not polymerise.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity	Oral LD ₅₀ (rat) approx 1000 mg/kg (of formulation) Dermal LD ₅₀ (rat) >4000 mg/kg (of formulation)
Local Effects	Eye: slightly irritant to the eye. Skin: non-irritant to the skin
Reproductive Effects	None of the ingredients of the formulation have been shown to produce reproductive or teratogenic effects.
Mutagenicity	None of the ingredients of the formulation have been shown to produce mutagenic effects.
Carcinogenic Effects	Fenthion has been shown in animal tests to have no carcinogenic potential. Other ingredients are not classified as carcinogens

SECTION 12 – ECOLOGICAL INFORMATION

Octanol/Water Partition Co-efficient	Log K _{ow} = 4.84
Ecotoxicity	Fish toxicity fenthion LC₅₀: 2.7 mg/L (96 h) Golden orfe (<i>Leuciscus idus</i>) LC₅₀: 0.83 mg/L (96 h) Rainbow trout (<i>Oncorhynchus mykiss</i>) LC₅₀: 1.7 mg/L White mullet Daphnia toxicity fenthion EC₅₀: 0.0057 mg/L (48 h) Water flea (<i>Daphnia magna</i>) Algae toxicity fenthion IC₅₀: 1.79 mg/L (72 h) Green algae (<i>Scenedesmus subspicatus</i>) Other aquatic toxicity fenthion LC₅₀: 0.6 mg/L Oysters LC₅₀: 0.006 mg/L Blue crab Bacteria toxicity fenthion EC₅₀: >10,000 mg/L Activated sludge Bird toxicity fenthion LD₅₀: 5.9 mg/kg Mallards LD₅₀: 17.8 mg/kg Pheasants LD₅₀: 4.6 mg/kg Pigeons LD₅₀: 1.3-26 mg/kg other birds Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 13 – DISPOSAL INFORMATION

After Intended Use	Triple rinse container with diesel and dispose of rinsate into a disposal pit away from waterways. Destroy empty containers by breaking, crushing or puncturing them. Bury containers at a depth of 500mm or more in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Do not burn empty containers or product. Alternatively disposal of containers over 1L is available through the drumMUSTER collection program. For more information contact the drumMUSTER national office on: drumMUSTER 02 6230 6712 (National Office) 1800 008 707 drummuster@drummuster.com.au www.drummuster.com.au
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After spill or accident	Dispose of sealed containers at an approved local waste disposal site.
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SECTION 14 – TRANSPORT INFORMATION

UN No	3082
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (contains Fenthion)
Class & Subsidiary Risk	9
Packaging Group	III
Hazchem Code	3Z
Marine Pollutant	Yes

SECTION 15 – REGULATORY INFORMATION

Poisons Schedule	Schedule 6
APVMA Registration	The product is registered by the APVMA.
Registration Number	35220
Labelling	All necessary directions, precautions and warnings for normal use of the product are included on the product label.

SECTION 16 – OTHER INFORMATION

Summary of Changes from Last Edition	Routine Review and Update
Acronyms	ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail APVMA Australian Pesticides and Veterinary Medicines Authority CAS Chemical Abstracts Service Registry Number HDPE High density polyethylene LDPE Low density polyethylene NOHSC National Occupational Health & Safety Commission SUSDP Standard for the Uniform Scheduling of Drugs and Poisons UN Number United Nations number

Disclaimer

This Material Safety Data Sheet has been developed according to the NOHSC National Code of Practice for the Preparation of MSDS [NOHSC:2011(2003)].

The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof.

The purpose of this Material Safety Data Sheet is to describe product in terms of their safety requirements.

Bayer Australia Limited make no representation of merchantability, fitness for a particular purpose or application, or of any other nature with respect to the information or the product to which the information refers ("the product").

The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use of the product.

The physical data shown herein are typical values based on material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and / or its packaging is in compliance with relevant Federal, State and Local Government regulations.

END OF MSDS