Bayer HealthCare

MATERIAL SAFETY DATA SHEET **A18125/03/AUS**

BAY-O-PET KILTIX TICK COLLAR FOR DOGS

SECTION 1 – IDENTIFICATION, CONTACTS, HAZARDOUS NATURE	
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	**Bay-o-pet Kiltix Tick Collar for Dogs**
Product Use	Insecticidal collar for tick control on dogs.
Other Names	Flumethrin, Propoxur
Creation Date Revision Date	25th June 2003 25th June 2003

SECTION 2 – HAZARDS IDENTIFICATION	
Hazard Classification	HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS
Risk Phrases	Harmful if swallowed
Safety Phrases	Keep locked up and out of reach of children. **RISK & SAFETY PHRASES ARE NOT REQUIRED ON PACKAGES INTENDED FOR END USERS. APPROPRIATE SAFETY DIRECTIONS AND FIRST AID STATEMENTS ARE SHOWN ON THE PRODUCT LABEL.**

SECTION 3 – COMPOSITION		
Ingredients	**CAS No**	**Proportion**
Flumethrin*	69770-45-2	2.25%
Propoxur**	114-26-1	10.0%

Other ingredients determined not to be hazardous	-	87.75%

*Flumethrin is a synthetic pyrethroid; Cyclopropanecarboxylic acid, 3- 2-chloro-2-(4-chlorophenyl)ethenyl -2,2dimethyl-,cyano(4-fluoro-3-phenoxyphenyl)methyl ester (9CI)

**Propoxur is a carbamate; 2-isopropoxyphenyl-N-methylcarbamate

SECTION 4 – FIRST AID MEASURES	
Label Regulated First Aid Statement	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131126.
General	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	Inhalation is not an exposure route for this product.
Skin contact	Remove contaminated clothing. Wash affected area immediately with soap and water. Seek medical attention if required.
Eye contact	May irritate the eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion	Toxic if swallowed. If vomiting occurs keep head lower than hips to help prevent aspiration. Seek medical attention if required.
Advice to doctor	No adverse effects are expected if this product is used in accordance with the label. Carbamates act by inhibiting cholinesterase. Some symptoms of overexposure that can occur due to propoxur if the product is mishandled are headache, drowsiness, nausea, tightness of chest, cramps, vomiting, diarrhoea. Synthetic pyrethroids can cause irritation of skin and mucous membranes in sensitive individuals. However both the active constituents are bound in a plastic matrix and are only available in small quantities. Poisoning with this product is unlikely due to the slow release of active ingredients from the plastic matrix. If poisoning occurs, apply basic aid and decontamination procedures. Treat symptomatically and if necessary administer antidote. Antidote: Atropine sulphate at 5-10 minute intervals until dryness of the mouth occurs. It is not recommended to administer oximes (PAM) for the treatment of carbamate toxicity. Atropine is not antidotal for synthetic pyrethroids. Skin and mucous membrane irritation caused by synthetic pyrethroids is usually self-limiting upon removal of the irritant and usually resolves within 24-48 hours.

SECTION 5 – FIRE FIGHTING MEASURES	
Extinguishing Media	Sprayed water jet, foam, dry powder, CO_2, sand.
Fire and Explosion Hazards	Non-combustible material. Outer packaging may burn.
Hazardous Combustion Products	Thermal decomposition products include hydrogen chloride, hydrogen cyanide, carbon monoxide, methyl isocyanate, and nitrogen oxides.
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 soil, waterways and drains. Sweep up spillage and place in a sealable container. Avoid breathing any dust and contact with the skin. On completion of clean up, scrub area with detergent and water and rinse with water. Do not eat, drink or smoke during clean-up operation.

SECTION 7 – HANDLING AND STORAGE	
Safe Handling	No specific recommendations. Suitable container materials HDPE (high density polyethylene), LDPE (low density polyethylene).
Storage	Keep out of reach of children. Store away from food, drink or animal feeding stuffs. Store below 30°C. Avoid heat above 40°C Keep away from heat or moisture.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION	
Exposure Limits	ES-TWA Propoxur 0.5 mg/cu metre, (ACGIH) ES-MAK Propoxur 2 mg/cu metre, (TRGS 900) ES-TWA Titanium dioxide 10 mg/cu metre, (ACGIH) No exposure allocated for other ingredients.
Ventilation	No ventilation is required under normal conditions of use.

Eye Protection	No eye protection is required under normal conditions of use. Under other conditions of use wear goggles.
Skin Protection	Do not open inner envelope until ready to use. Do not allow children to play with the collar. Wash hands after use.
Respirator	No respirator is required under normal conditions of use.
Protective Material Types	Rubber, latex.
General Advice	None

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES	
Physical State	Solid
Colour	Brown
Odour	Dusty odour, slightly phenolic
Boiling Point	Not relevant
Softening Point	>75°C
Density	Approx 1.0 kg/L at 20°C
Vapour Pressure	Not relevant
Viscosity	Not relevant
Solubility in Water	Insoluble
pH	Not relevant
Flash Point	Not relevant.
Ignition Temperature	Not relevant
Explosive Limits	Not relevant
Other Information	The product is packed singly in plastic inner pouches.

SECTION 10 – STABILITY & REACTIVITY	
Chemical Stability	Product is stable. No hazardous reactions.
Conditions to Avoid	Avoid strong oxidising agents.
Incompatible Materials	None
Hazardous Decomposition	Thermal decomposition products include hydrogen chloride, hydrogen cyanide, carbon monoxide, methyl isocyanate, and nitrogen oxides.
Hazardous Reactions	Will not polymerise.

SECTION 11 – TOXICOLOGICAL INFORMATION	
Acute Toxicity	The active ingredients are largely immobilised by the collar. Approximately 0.4 mg are released per day. Oral LD_{50} (dog) >2000 mg/kg (of formulation) Dermal LD_{50} (rabbit) >5000 mg/kg (of formulation)
Local Effects	Eye: non-irritant. Skin: non-irritant
Reproductive Effects	None of the ingredients in this product have been shown to produce reproductive effects.
Mutagenicity	None of the ingredients of the formulation have been shown to produce mutagenic effects.
Carcinogenic Effects	None of the ingredients of the formulation have been shown to produce carcinogenic effects.

SECTION 12 – ECOLOGICAL INFORMATION	
Octanol/Water Partition Co-efficient	K = 1.56 (propoxur)
Ecotoxicity	**Fish toxicity** propoxur LC_{50}: 12 mg/L (96 h) Golden orfe (*Leuciscus idus*) LC_{50}: 4-14 mg/L (96 h) Rainbow trout (*Salmo gairdneri*) LC_{50}: 6.6 mg/L (96 h) (*Lepomis macrochirus*) LC_{50}: 10-40 mg/L (96 h) Illy fish (*Orizias latipes*) LC_{50}: 10-40 mg/L Carp (*Cyprinus carpio*) flumethrin Concentrations down to 0.5 mg/L are toxic to goldfish **Daphnia toxicity** propoxur EC_{50}: 0.15 mg/L (48 h) Water flea (*Daphnia magna*) flumethrin LC_{50}: 0.2 mg/L (48 h) Water flea (*Daphnia magna*) Flumethrin is a toxic hazard for aquatic organisms **Algae** propoxur IC_{50} (growth): 43.0 mg/L Green algae (*Scenedesmus subspicatus*) **Bird toxicity** propoxur LD_{50} (oral): 3.6-60 mg/kg depending on species **Bee toxicity** propoxur LD50: 0.24 ug/bee (24 hours) Propoxur is a toxic hazard to honeybees.

SECTION 13 – DISPOSAL INFORMATION	
After Intended Use	Dispose of used packaging by wrapping in paper and placing in garbage.
After spill or accident	Dispose of sealed containers at an approved local waste disposal site.

SECTION 14 – TRANSPORT INFORMATION	
UN No	Not classified
UN Proper Shipping Name	Not classified
Class & Subsidiary Risk	Not classified
Packaging Group	Not classified
Hazchem Code	Not classified

SECTION 15 – REGULATORY INFORMATION	
Poisons Schedule	S5
APVMA Registration	The product is registered by the APVMA.
Registration Number	51952
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	Update from NOHSC 1994 format.
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