Safety Data Sheet

David Grays ANTEX PRO

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	David Grays Antex Pro
Other means of identification:	Fipronil suspension concentrate; phenylpyrazole insecticide
Recommended use of the chemical and restrictions on use:	For the protection of structures from subterranean termite damage and for the control of subterranean termites around domestic and commercial structures specified on the product label
Supplier:	David Gray & Co. Pty Ltd
ABN:	73008671127
Street Address:	2 Rawlinson Street, O'Connor, 6163, WA
Telephone No:	08 9337 4933
Fax:	NA
Email:	general@davidgray.com.au
Distributed by:	David Gray & Co. Pty Ltd 2 Rawlinson Street, O'Connor, 6163, WA
Emergency Telephone:	08 9337 4933

2. HAZARDS IDENTIFICATION

Classification of the substance mixture:

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

Classification of the substance or mixture:
Acute oral toxicity – Category 4
Acute inhalation toxicity – Category 4
Specific target organ toxicity, repeated exposure: Category 2

The following health hazard categories fall outside the scope of the Workplace Health and Safety Regulations:
Acute aquatic toxicity – Category 1
Chronic aquatic toxicity – Category 1
Acute dermal toxicity – Category 5

SIGNAL WORD: WARNING

Hazard Statement(s):

H302	Harmful if swallowed
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary Statement(s):
Prevention:

P260	Do not breathe mist/spray.
P271	Use only outdoors or in a well-ventilated areas.
P264	Wash hands, arms and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

Response:

P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
P330	Rinse mouth.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion (g/L)
Fipronil	120068-37-3	100 g/L
Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations.		

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation: If inhaled, remove to fresh air. Seek medical attention if unwell.

Skin Contact: Remove contaminated clothing and wash affected areas with soap and water. Seek medical attention if symptoms persist. Wash clothing before reuse.

Eye Contact: In case of eye contact, check for and remove any contact lenses. Immediately irrigate eyes with plenty of running water for at least 15 minutes, keeping eyelids open. Seek medical attention if symptoms persist.

Ingestion: If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Can cause chemical pneumonitis and pulmonary oedema. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure. Seek immediate medical attention.

First Aid Facilities: Eyewash and normal washroom facilities.

Indication of immediate medical attention and special treatment needed: Clinical signs and symptoms reported after ingestion of fipronil by humans include sweating, nausea, vomiting, headache, abdominal pain, dizziness, agitation, weakness, and tonic-clonic seizures. Clinical signs of exposure to fipronil are generally reversible and resolve spontaneously.

Initial treatment: Treat symptomatically. Exposure to fipronil and its metabolites can be measured via a blood sample or in the gastric lavage fluid. Samples should be collected as soon after the exposure as possible.21 Methods of analysis include an ELISA developed to detect total fipronil (fipronil and its metabolites) and liquid chromatography mass spectrometry which can distinguish fipronil from its sulfone and desulfinyl metabolites.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray*, alcohol-resistant foam, dry chemical or carbon dioxide.
* Do not use extinguisher type which may spread fire (e.g. solid water stream or high volume water jet).

Specific hazards arising from the substance or mixture: Dangerous gases are evolved in the event of a fire.

Special protective equipment and precautions for fire-fighters:	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/ Environmental precautions:	In the event of a spill, prevent spillage from entering drains or water courses with absorbent material and call emergency services.
Personal precautions/ Protective equipment:	Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.
Methods and materials for containment and cleaning up:	Contain product spill as appropriate. Contain spill of diluted mix by absorbing with clay, sand, soil or proprietary absorbent (such as vermiculite). Cover drains if possible. Collect spilled material and waste in sealable open-top type containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:	Read container label before use. Use only in accordance with the instructions provided on the container label, including the Precaution and Protection sections and the Safety Directions.
Conditions for safe storage, including any incompatibilities:	Store in the closed, original container in a dry, well ventilated area, as cool as possible.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No exposure standards have been set for this product or its ingredients.

Appropriate engineering controls: Use only in a well-ventilated area.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Observe good standards of hygiene and cleanliness. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

Respiratory Protection: A respirator is not needed under normal and intended conditions of product use however if ventilation is not adequate then a respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Eye and Face protection: Safety glasses/goggles with side shield protection should be worn as a general precaution. Consult AS/NZS 1336 and AS/NZS 1337 for further information.

Skin Protection: PVC or nitrile rubber gloves should be worn as a general precaution. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use. Consult AS/NZS 2161 for further information.

Trousers, long sleeved shirt or overalls and closed in shoes or safety footwear should be worn as a general precaution. Consult AS/NZS 2210 and AS/NZS 2919 for further information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Off-white
Odour:	Minimal odour
pH:	6.8 (1% w/w solution)
Specific Gravity:	1.05
Melting Point/Freezing Point:	No data available for formulation.
Boiling Point/range:	No data available for formulation.

Flash Point:	No data available for formulation.
Evaporation Point:	No data available for formulation.
Vapour Pressure:	$2.8x10^{-9}$ mmHg @ 25°C (fipronil)
Vapour Density:	No data available for formulation.
Solubility:	0.0019 g/L (pH 5); 0.0024 g/L (pH 9) at 20 °C (fipronil) David Grays Fipronil 100SC Termiticide & Insecticide is a suspension in water.
Partition coefficient: n- octanol/water	$1.00x10^{4}$ (fipronil)
Auto-ignition Temperature:	No data available for formulation.
Decomposition Temperature:	No data available for formulation.
Viscosity:	No data available for formulation.

10. STABILITY AND REACTIVITY

Reactivity:	Stable under normal storage conditions and use.
Chemical stability:	Stable under normal storage conditions and use.
Possibility of hazardous reactions:	None when stored and used as directed. Hazardous polymerisation is not possible.
Conditions to avoid:	None known. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatible materials:	No particular incompatibilities. Store and use as directed.
Hazardous decomposition products:	None known. Store and use as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Oral LD_{50}: 946 mg/kg (rat, calculated from ingredients) Category 4 Dermal LD_{50}: 3272 mg/kg (rabbit, calculated from ingredients) Category 5 Inhalation LC_{50}=5 mg/L calculated from ingredients)
Ingestion:	Product is harmful if ingested.
Inhalation:	Product is harmful if inhaled.
Skin:	Not expected to be a skin irritant.
Eye:	Not expected to be an eye irritant.
Respiratory or skin sensitisation:	Not expected to be a respiratory or skin sensitiser.
Germ cell mutagenicity:	No data for the product. Fipronil is not considered to be genotoxic via in-vitro and in-vivo studies.
Carcinogenicity:	No data for the product. Fipronil is not considered to be carcinogenic (52 week rat studies). Fipronil did not cause mutations in human lymphocytes, Chinese hamster V79 cells, *Salmonella* (Ames test), or mouse micronuclei.
Reproductive toxicity:	No data for the product. Fipronil is not considered to have significant reproductive toxicity. No developmental abnormalities were reported for fipronil administered to rats and rabbits at oral doses up to 20 mg/kg bw/d and 1 mg/kg bw/d respectively.
STOT-single exposure:	No data for the product. Fipronil technical produces clinical signs of neurotoxicity.
STOT-repeated exposure:	No data for the product. Repeated exposure is derived from the properties of Fipronil technical which may cause damage to organs through prolonged or repeated exposure.
Aspiration hazard:	No data for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity: **Information on Fipronil, the primary environmental toxicant in David Grays Fipronil 100SC Termiticide & Insecticide.**

Fish	LC_{50} (96 h) 0.246 mg/l, *Oncorhynchus mykiss* LC_{50} (96 h) 0.083 mg/l, *Lepomis macrochirus* LC_{50} (96 h) 0.130 mg/l, *Cyprinodon variegatus*

	Aquatic invertebrates:	EC_{50} (48 h) 0.19 mg/l, *Daphnia magna* EC_{50} (96 h) 0.77 mg/L Eastern oyster EC_{50} (96 h) 0.14 µg/L Mysid shrimp
	Aquatic plants:	EC_{50} (96 h) 0.068 mg/l (biomass), *Scenedesmus subspicatus*.
	Birds:	Acute oral LD50 11.3 mg/kg and 31.0 mg/kg, bobwhite quail and pheasants respectively Sub-acute toxicity - 5-day dietary LC50 of 49 mg/kg in bobwhite quail Practically non-toxic to mallard ducks with no documented acute, sub-acute, or chronic effects
	Honeybees:	LC_{50} 0.004 µg/bee
Persistence/degradability:	Half-life of fipronil is 122-128 days in aerobic soils. No evidence of volatility. Fipronil degrades on soil surfaces by ultraviolet radiation and rapidly in water when exposed to UV light to form fipronil-desulfinyl. Under these conditions, fipronil has a half-life of34 days in loamy soil and 4 to 12 hours in water. Fipronil is stable to hydrolysis at pH 5 and pH 7. However, it degrades in alkaline conditions direct proportion to increasing pH values.	
Bioaccumulative potential:	Fipronil accumulates in fish with a bioconcentration factor of 321 for whole fish, 164 for edible tissue, and 575 for nonedible tissue. Fish eliminated fipronil completely 14 days after being transferred to clean water.	
Mobility in Soil:	Low mobility in soil and is not expected to leach into groundwater. Koc = 427-1248 in sandy loam	

13. DISPOSAL CONSIDERAT IONS

Disposal methods:

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.

Container Disposal: Do not use this container for any other purpose. Triple or preferably pressure rinse empty containers before disposal or recycling. Add rinsings to spray tank. Contact licensed industrial waste collector for proper disposal.

14. TRANSPORT INFORMATION

Road and Rail Transport:

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500kg or 500 L are not subject to the ADG Code.

If transported above these limits, then it is classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; DANGEROUS GOODS

UN Number:	3082
Proper Shipping Name or Technical Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FIPRONIL)
Transport Hazard Class:	9
Packaging Group:	III
Hazchem Code:	3Z

Marine Transport:

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN Number:	3082
Proper Shipping Name or Technical Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains BROMOXYNIL OCTANOATE)

	Transport Hazard Class:	9
	Packaging Group:	Not assigned.
	IMDG EMS Fire:	F - A
	IMDG EMS Spill:	S - F
Air Transport:	Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.	
	UN Number:	3082
	Proper Shipping Name or Technical Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains BROMOXYNIL OCTANOATE)
	Transport Hazard Class:	9
	Packaging Group:	Not assigned.

15. REGULATORY INFORMATION

Poison Schedule (SUSMP):	5 – CAUTION
APVMA:	90608
AICS:	All the constituents of this material are either listed on the Australian Inventory of Chemical Substances (AICS), not required due to the nature of the chemical, or have been assessed under the National Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

16. OTHER INFORMATION

General Information:	None
Issue Number:	001
Issue Date:	17 January 2022

In any event, the review and, if necessary, the re-issue of an SDS shall be no longer than 5 years after the last date of issue.

Reason(s) for Issue:	Not applicable.
Literary Reference:	None
Key abbreviations or acronyms used:	ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition) AICS - Australian Inventory of Chemical Substances AgVet Code Act 1994 – Agricultural and Veterinary Chemicals Code Act 1994 APVMA – Agricultural Pesticides and Veterinary Medicines Australia GHS - Globally Harmonised System of Classification and Labelling of Chemicals (3rd revised edition) 2009 IARC - International Agency for Research on Cancer LD_{50} or LC_{50} – Estimated lethal dose / concentration to kill 50% of the population/sample. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (December 2016) STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day. STOT – Specific Target Organ Toxicity SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons SWA - Safe Work Australia, formerly ASCC and NOHSC TGA – Therapeutic Goods Australia WHS – Workplace Health and Safety

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END OF SDS