

# David Grays Fipronil 100SC Termiticide and Insecticide

#### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:David Grays Fipronil 100SC Termiticide and InsecticideOther means of identification:Fipronil suspension concentrate; phenylpyrazole insecticide

**Recommended use of the**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:



# **David Grays Fipronil 100SC Termiticide and Insecticide**

IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel P301 + P312

unwell.

P330 Rinse mouth.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

P314 Get medical advice/attention if you feel unwell.

Disposal:

P501 contents/container Dispose 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

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.



## **David Grays Fipronil 100SC Termiticide and Insecticide**

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. Keep people away from and upwind of spill/leak.

Personal precautions/ Protective equipment:

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** Use only in a well-ventilated area.

controls:

### 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:

No data available for formulation. Melting Point/Freezing Point: No data available for formulation. **Boiling Point/range:** 



## **David Grays Fipronil 100SC Termiticide and Insecticide**

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<sup>4</sup> (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<sub>50</sub>: 946 mg/kg (rat, calculated from ingredients) Category 4

Dermal LD<sub>50</sub>: 3272 mg/kg (rabbit, calculated from ingredients) Category 5

Inhalation LC<sub>50</sub>=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<sub>50</sub> (96 h) 0.246 mg/l, Oncorhynchus mykiss

LC<sub>50</sub> (96 h) 0.083 mg/l, Lepomis macrochirus LC<sub>50</sub> (96 h) 0.130 mg/l, Cyprinodon variegatus



## **David Grays Fipronil 100SC Termiticide and Insecticide**

Aquatic  $EC_{50}$  (48 h) 0.19 mg/l, Daphnia magna invertebrates:  $EC_{50}$  (96 h) 0.77 mg/L Eastern oyster

 $EC_{50}$  (96 h) 0.14 µg/L Mysid shrimp

Aquatic plants: EC<sub>50</sub> (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:  $LC_{50} 0.004 \mu g/bee$ 

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 CONSIDERATIONS

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

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other

Rail

receptacle not exceeding 500kg or 500 L are not subject to the ADG Code.

Transport:

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: 32

Marine

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code

**Transport:** (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)



## **David Grays Fipronil 100SC Termiticide and Insecticide**

Transport Hazard Class: 9

Packaging Group: Not assigned.

IMDG EMS Fire: F - A
IMDG EMS Spill: S - F

Air Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA)

**Transport:** 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 (3<sup>rd</sup> 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** 

David Gray & Co. Pty Ltd