

**1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER**

**Product name:** BattleaxePRO® Professional Crack & Crevice Aerosol

**Other names:** None

**SAP product code:** Not available

**Chemical group:** Pyrethroid/Carbamate/Benzodioxole

**Recommended use:** Insecticide surface spray aerosol for use by professional pest control operators

**Formulation:** Aerosol

**Supplier:** Sundew Solutions Pty Ltd  
ABN 37 135 400 261

**Address:** 3 Tramore Close, Templestowe, Victoria 3106, Australia

**Telephone:** 1800 786 339

**Facsimile:** 03 9846 1315

**Website:** www.sundewsolutions.com.au

**Contact:** Manager 1800 786 339

**Emergency Telephone Number:** 1800 033 111 – Orica SH&E Shared Services

**2. HAZARDS IDENTIFICATION**

**HAZARDOUS SUBSTANCE - DANGEROUS GOOD**  
Harmful: May cause lung damage if swallowed. Highly flammable

**Hazard Designation:** Hazardous (National Occupational Health and Safety Commission – NOHSC)

**Risk phrases:** R65 – Harmful: may cause lung damage if swallowed

**Safety phrases:** See Sections 4, 5, 6, 7, 8, 9, 13

**ADG classification:** Dangerous Goods for transport by road and rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail – AEROSOLS, Class 2, UN 1950

**SUSDP classification:** Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Ingredients:</b>	<b>CAS Number:</b>	<b>Concentration (g/kg):</b>
Propoxur	[114-26-1]	20
Tetramethrin	[7696-12-0]	2
Piperonyl butoxide	[51-03-6]	10
Ethanol	[64-17-5]	300
Deodorised kerosene	[8008-20-6]	167
Other ingredients (non hazardous)	-	501

#### 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.**

- Inhalation:** Remove victim to fresh air and keep at rest. Treat symptoms. Seek medical advice.
- Skin contact:** If sprayed on skin wash contacted area thoroughly. Seek medical assistance.
- Eye contact:** Immediately irrigate with copious quantities of water for at least 15 minutes. Seek medical assistance.
- Ingestion:** If sprayed in mouth rinse mouth with water and seek medical advice.
- First Aid Facilities:** Provide washing facilities in the workplace.
- Symptoms:** Propoxur presents the greatest danger. Propoxur belongs to the carbamate group of insecticides, which are acetylcholinesterase inhibitors. Inhibition of acetylcholinesterase results in accumulation of the neurotransmitter acetylcholine in the central and peripheral nervous system. Symptoms of poisoning include mild intoxication causes headache, blurred vision, weakness, sweating, mild chest pain, nausea and vomiting. Severe intoxication causes cyanosis, muscular twitching, spasms, miosis and respiratory paralysis. Onset of symptoms may be delayed. Cholinesterase inhibition sometimes persists for several weeks.
- Medical attention:** Basic aid, decontamination, symptomatic treatment and if necessary administration of antidote (atropine).

Note for physicians

Endotracheal intubation should be done and gastric lavage performed, followed by administration of charcoal. Treatment is with atropine sulphate. Additionally diazepam should be given in case of seizures/convulsions. Atropine should not be given to a cyanosed patient. Monitor respiratory, cardiac and central nervous system functions. Monitor red blood cell and plasma cholinesterase levels. Administer oxygen if necessary. Watch for pulmonary oedema and delayed neurological symptoms. Contraindications include oximes (pralidoxime, oblidoxime), succinyl chloride and aminophylline. 2 regimens for initial atropine treatment are currently suggested, in both cases the cessation of the cholinergic symptoms salivation, bronchial secretion, sweating and bradycardia indicates sufficient atropinisation. The skin should be dry, the lungs should be clear on auscultation and the heart rate should be in a range of 80 to 100/minute. Overdoses of atropine have to be strictly avoided, as these can promote heart rhythm disturbances.

Regimen 1:

(2-10 mg atropine i.v., followed every 15 minutes by 2 mg atropine i.v. until cessation of the symptoms.

#### **4. FIRST AID MEASURES - continued**

Regimen 2:

- 2 mg atropine i.v., 5 minutes wait, if symptoms persist or reappear
- 4 mg atropine i.v., 5 minutes wait, if symptoms persist or reappear
- 8 mg atropine i.v., 5 minutes wait, if symptoms persist or reappear
- 16 mg atropine i.v., 5 minutes wait, if symptoms persist or reappear
- 32 mg atropine i.v.

No higher doses of atropine should be given nor are necessary.

For children, the dosage has to be more careful due to a higher sensitivity of children to atropine. The initial dose should be 0.1 mg/kg body weight, then careful repletion or increase depending on the reversal of symptoms as described above.

It is mandatory to allow 5 minutes after each dose for atropine to become fully effective, the next higher dose must not be given earlier and only if the above symptoms are persisting.

Regimen 2 currently is advisable. If further atropine treatment is required (taking into account the relatively short effect of carbamates), it should be done by continuous application of 1 – 2 mg/hour. Atropine treatment can be stopped, when the plasma cholinesterase level has returned to above 30% of normal.

#### **5. FIRE FIGHTING MEASURES**

**Extinguishing media:** Water fog or foam

**Hazards from combustion products:** In the event of fire, the evolution of gaseous oxides of carbon and nitrogen should be anticipated.

**Precautions for fire fighters:** Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away and move all other personnel to windward side of fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.

#### **6. ACCIDENTAL RELEASE MEASURES**

Presentation as a pressurized aerosol can means widespread spillage is unlikely. Pressurised aerosol containers can present an explosive hazard if damaged and any damaged cans should be handled with care and isolated. Damage to containers which results in leakage of contents is likely to cause contamination of localised areas only. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable container. Spread hydrated lime over the affected. Do not smoke, eat or drink during the clean-up operation.

## 7. HANDLING AND STORAGE

**Handling:** Keep out of reach of children. Avoid contact with eyes and skin. Do not inhale spray mist.

**Storage:** Keep in a cool place out of the sun.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure standards:** Propoxur TWA 0.5 mg/cu metre (ACGIH)  
Ethanol TWA 1880 mg/cu metre (1000 ppm) (ACGIG)

NOHSC exposure standards have not been established for other ingredients in this formulation.

**Engineering controls:** No engineering controls are required for the normal use of this product according to label.

**Personal Protective Equipment:** None required.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Aerosol can

**Odour:** Characteristic odour

**Vapour pressure:** Not established

**Vapour Density:** Not available

**Boiling point:** Not established

**Freezing/melting point:** Not established

**Density:** 0.77

**pH:** Not established

**Flash Point:** Not established

**Flammability:** Highly flammable.

Do not spray uninterrupted for more than 10 seconds in confined spaces. Keep away from naked flames.

**Auto ignition temperature:** Not established

**Octanol/water**

**Partition coefficient:** Not available

**Formulation:** Aerosol

## 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Hazardous polymerisation:</b>	None
<b>Conditions to avoid:</b>	Highly flammable. Do not puncture or incinerate can. Store at normal room temperature. Do not spray uninterrupted for more than 10 seconds in confined spaces. Keep away from naked flames. Ensure good ventilation.
<b>Incompatible materials:</b>	Not available
<b>Hazardous decomposition products:</b>	In the event of fire, gaseous oxides of carbon and nitrogen may be released.

## 11. TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

<b>Inhalation:</b>	Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.
<b>Skin contact:</b>	Will irritate the skin.
<b>Eye contact:</b>	May irritate the eyes.
<b>Ingestion:</b>	Presentation as an aerosol makes ingestion unlikely.

### ANIMAL TOXICITY DATA – INDIVIDUAL INGREDIENTS:

#### Acute:

<b>Oral toxicity:</b>	LD <sub>50</sub> rat: propoxur piperonyl butoxide tetramethrin	50 mg/kg i.e. toxic 7500 mg/kg i.e. low toxicity >5000 mg/kg i.e. low toxicity
<b>Dermal toxicity:</b>	LD <sub>50</sub> rat: propoxur piperonyl butoxide tetramethrin	>5000 mg/kg >7950 mg/kg >2000 mg/kg
<b>Inhalation toxicity:</b>	LC <sub>50</sub> rat: propoxur piperonyl butoxide tetramethrin	>0.5 mg/L (aerosol) >5.9 mg/L >2.73 mg/L
<b>Skin irritation:</b>	Propoxur piperonyl butoxide tetramethrin	Non-irritating Non-irritating Non-irritating
<b>Eye irritation:</b>	Propoxur piperonyl butoxide	Slightly irritating Non-irritating

#### Chronic:

The effects of chronic exposure to this formulation have not been evaluated.

## 12. ECOLOGICAL INFORMATION

<b>Fish toxicity:</b>	LC <sub>50</sub> (96h) = 6.2 – 6.6 mg/L bluegill sunfish (propoxur) LC <sub>50</sub> (24h) = 5.3 mg/L carp (piperonyl butoxide) EC <sub>50</sub> (96h) = 3.7 µf/L rainbow trout (tetramethrin)
<b>Daphnia toxicity:</b>	LC <sub>50</sub> (48h) = 0.15 mg/L (propoxur) LC <sub>50</sub> (24h) = 2.95 mg/L (piperonyl butoxide) EC <sub>50</sub> (48h) = 0.11 mg/L (tetramethrin)
<b>Toxicity to algae:</b>	EC <sub>50</sub> 44 µmol/L (piperonyl butoxide)
<b>Bird toxicity:</b>	LD <sub>50</sub> (5d) = 2828 mg/kg diet bobwhite quail (propoxur) LD <sub>50</sub> > 2250 mg/kg bobwhite quail (piperonyl butoxide) LD <sub>50</sub> > 2250 mg/kg bobwhite quail (tetramethrin)
<b>Bee toxicity:</b>	Propoxur is classed as extremely toxic to bees LD <sub>50</sub> > 25 µg/bee (piperonyl butoxide) Tetramethrin is toxic to bees
<b>Other:</b>	None
<b>Environmental fate, persistence and degradation:</b>	Not available

## 13. DISPOSAL CONSIDERATIONS

After intended use: Do not puncture or incinerate the can even when empty. Aerosols should be completely empty (used) before disposal. Place empty cans in household rubbish.

After spill or accident: Dispose of sealed containers at an approved local waste disposal site.

## 14. TRANSPORT INFORMATION

<b>UN number:</b>	1950
<b>Proper shipping name:</b>	AEROSOLS
<b>Class and subsidiary risk:</b>	2
<b>Packing group:</b>	Not applicable
<b>EPG:</b>	Not applicable
<b>Hazchem code:</b>	Not applicable

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**15. REGULATORY INFORMATION**

Registered according to the Agricultural and Veterinary Chemicals Act 1988.

Australian Pesticides and Veterinary Medicines Authority Approval Number: 65697/51597

**16. OTHER INFORMATION**

**Trademark information:** BattleaxePRO® is a registered trademark of Sundew Solutions Pty Ltd

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS