

Section 1 - Identification of The Material and Supplier

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Chemical nature: Propargite is a complex organic acaricide.
Trade Name: **Sabakem Propargite 600EC Miticide**
APVMA Code: 69243
Product Use: Agricultural miticide for use as described on the product label.
Creation Date: **October, 2013**
This version issued: **July, 2016** and is valid for 5 years from this date.

Section 2 - Hazards Identification**Statement of Hazardous Nature**

This product is classified as: Hazardous according to the criteria of SWA Australia.

Not subject to the ADG Code when transported in Australia by Road or Rail in packages 500kg(L) or less; or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply. Then the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See details below and in Section 14 of this SDS.

SUSMP Classification: S6

ADG Classification: Class 9: Miscellaneous dangerous goods.

UN Number: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**GHS Signal word: DANGER**

Skin Corrosion /Irritation Category 2

Serious eye damage/eye irritation Category 2/2A

Acute Toxicity Inhalation Category 3

Carcinogenicity Category 2

Hazardous to aquatic environment Short term/Chronic Category 1

HAZARD STATEMENT:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H351: Suspected of causing cancer.

H410: Very toxic to aquatic life with long lasting effects.

PREVENTION

P102: Keep out of reach of children.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash contacted areas thoroughly after handling.

P271: Use only outdoors or in a well ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves, protective clothing and eye or face protection.

P281: Use personal protective equipment as required.

RESPONSE

P311: Call a POISON CENTRE or doctor.

P362: Take off contaminated clothing and wash before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

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P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.
P391: Collect spillage.
P370+P378: Not combustible. Use extinguishing media suited to burning materials.

STORAGE

P410: Protect from sunlight.
P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Emergency Overview

Physical Description & colour: Clear light brown liquid.

Odour: Characteristic odour.

Major Health Hazards: Adequate data are not available to fully assess the toxicity of Propargite. While, in general, Propargite is not highly toxic it is a primary eye and skin irritation. Harmful in contact with skin, and if swallowed, eye irritant.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m ³)
Propargite	2312-35-8	60	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures**General Information:**

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: No specific health data is available for this product. If any unusual symptoms become evident, or if in doubt, contact a Poisons Information Centre or a doctor.

Eye Contact: Quickly and gently blot or brush away product. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water until the product is removed or until a few minutes after irritation has ceased, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: This product is classified as a Flammable Class 4 (GHS), C1 combustible (AS 1940) product. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Flash point: 71°C

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Upper Flammability Limit:	No data.
Lower Flammability Limit:	No data.
Autoignition temperature:	No data.
Flammability Class:	Flammable Class 4 (GHS), C1 combustible (AS 1940)

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including face mask, face shield and gauntlets. All skin areas should be covered. See above under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this class of poison. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m³)	STEL (mg/m³)
Exposure limits have not been established by SWA for any of the significant ingredients in this product.		

The ADI for Propargite is set at 0.002mg/kg/day. The corresponding NOEL is set at 2mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2012.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations should be provided near to where this product is being used.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Clear light brown liquid.
Odour:	Characteristic odour.
Boiling Point:	235-264°C at 100kPa
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.

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Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	Negligible at normal ambient temperatures.
Vapour Density:	No data.
Specific Gravity:	1.08 approx
Water Solubility:	Emulsifiable.
pH:	5.4 (1% in water).
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water distribution:	No data.
Autoignition temp:	No data.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11 - Toxicological Information

Toxicity: - Acute Oral Toxicity (Rat): 2200 mg/kg

Acute Dermal Toxicity (Rabbit): 3.16(1.63-6.15) mL/kg

Acute Inhalation: > 2.5 mg/L - Primary Eye Irritation: Corneal effects that were not reversible after 14 days were observed in four of six rabbits.

Dermal Sensitization: Inconclusive - Subchronic Dermal Toxicity: Inconclusive

Chronic Effects

Teratogenicity (Rabbit): Maternal NOEL = 2 mg/kg/day. Maternal LEL s 6 mg/kg/day (reduced body weight gain).

Developmental Toxicity NOEL = 2 mg/kg/day; developmental (increased resorption, reduced body weight, and delayed ossification). A/D ratio = maternal LEL/Developmental = 2/2 = 1.

3-Gen. Reproduction (Rat): Noel > 300 ppm. Additional data is required. Only one dose used throughout the study.

Mutagenicity: Inconclusive. Additional categories of mutagenicity testing are required.

Chronic Feeding/Oncogenicity (Dog): NOEL = 900 ppm (HDT). No adverse effects were observed by the haematology, blood chemistry determinations or urine examinations. - Feeding/Oncogenicity: Inconclusive. The study is classified as Supplementary because too few animals were examined histologically at 900 and 2000 ppm. This study needs to be repeated. - Metabolism: Inconclusive. Additional data is required.

Other Toxicological Effects

Propargite is not an organophosphate chemical; therefore, it does not have a neurotoxic potential, and a neurotoxicity study is not required.

Major Routes of Exposure - There is a potential for dermal, ocular and inhalation exposure from mixing concentrates and applying spray mixtures. Physiological and biochemical behaviour characteristics

Foliar Absorption: Data are not available to evaluate the effects of Propargite in plants.

Translocation: Data are not available to evaluate the translocation in plants.

Mechanism of Pesticidal Actions: Mode of activity involves residual killing action.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Propargite	Conc>=25%: T; R40; R23; R38; R41
	<ul style="list-style-type: none">• Carcinogenicity - category 2• Acute toxicity - category 3• Skin irritation - category 2• Eye damage - category 1• Hazardous to the aquatic environment (acute) - category 1

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- Hazardous to the aquatic environment (chronic) - category 1

Potential Health Effects

See section 11 for Chronic exposure studies.

Inhalation

Short term exposure: Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.

Skin Contact:

Short term exposure: Available data shows that this product is harmful, but symptoms are not available. However product is unlikely to cause any discomfort in normal use.

Eye Contact:

Short term exposure: Available data shows that this product is not harmful. However product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Ingestion:

Short term exposure: Available data shows that this product is harmful, but symptoms are not available. This product is unlikely to cause any irritation problems in the short or long term.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 12 - Ecological Information

Air: Propargite has negligible vapour pressure therefore, it is not readily volatilized into the atmosphere.

Water: Propargite is a hydrophobic compound with very low water solubility, 0.5 ppm at 25°C. Its organic adsorption coefficient values (Koc) varied from 4128 to 8553 cm³/g, increasing with higher organic matter content in soil. The data indicate that Propargite moderately binds to soils with low organic matter and strongly binds to soils with high organic matter. It also has a high octanol/water partition coefficient (log Kow = 3.66), suggesting that this compound readily binds to soils and other suspended matter in water. Therefore, Propargite has a low potential to leach in soil and reach ground water. Propargite hydrolyses slowly in water at pH 7 and below; it hydrolyses more rapidly at pH 9. The aqueous hydrolysis half-lives of Propargite in aqueous buffer were 120-702 days, 48- 78 days and 2-3 days at pH 5, 7 and 9, respectively. The half-lives for Propargite in light and in darkness are almost identical, indicating that aqueous photolysis plays a negligible role in the degradation of Propargite in water. The major degradation products of Propargite in water are 2- [4-(1,1-dimethylethyl)phenoxy]-cyclohexanol (Propargite glycol ether) and p-tert-butyl phenol.

Soil: The fate of Propargite in soil can be affected by many factors including its physicochemical properties, application rate, soil type, moisture content, climate and runoff. The organic adsorption coefficient values of Propargite, 4128 – 8553 cm³/g, suggest that Propargite moderately binds to soil particles and strongly to soils with high organic contents. The photodegradation half-life of Propargite on a sandy loam soil is approximately 75 days and the only identified degradation product is Propargite glycol ether. The anaerobic metabolism half lives for Propargite at 1 and 10 ppm are 4.5 months and 12 months, respectively. Under aerobic conditions, the half-life is 40 days. Field dissipation tests have been conducted for Propargite in a wide variety of soils and conditions. No residues over detection level of 0.10 ppm was found below 6 inches and the estimated half-lives ranged from 64 to 122 days, meaning that Propargite is moderately persistent in soil.

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/> where you will find contact details for your area.

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Section 14 - Transport Information

Not subject to the ADG Code when transported by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs, but classed as Dangerous by IATA and IMDG when carried by Air or Sea transport (see details below).

ADG Code: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazchem Code: •3Z

Special Provisions: 179, 274, AU01

Limited quantities: ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

Dangerous Goods Class: Class 9: Miscellaneous Dangerous Goods.

Packaging Group: III

Packaging Method: P001, IBC03, LP01

Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this product are compliant with NICNAS regulations.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. 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.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)
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