

SAFETY DATA SHEET

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This revision issued: October, 2015

Section 1 - Identification of The Material and Supplier

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SIPCAM

Trade Name: Slingshot Fungicide
APVMA Code: 52889
Chemical nature: Blend of ingredients. Active ingredient is an azole derivative.
Product Use: Agricultural fungicide for use as described on the product label.
Creation Date: April, 2009
This version issued: October, 2015 and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. Xi, Irritating. Hazardous according to the criteria of SWA.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code. However, this is a C1 Combustible Liquid so must be stored and handled as specified in AS 1940 "The storage and handling of flammable and combustible liquids."

Risk Phrases: R43, R65, R66. May cause sensitisation by skin contact. Harmful: May cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking.

Safety Phrases: S23, S26, S28, S46, S24/25, S37/39. Do not breathe vapours or mists. In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. After contact with skin, wash immediately with plenty of soap and water. If swallowed, contact a doctor or Poisons Information Centre immediately and show this MSDS or label. Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection.

SUSMP Classification: S5

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

UN Number: None allocated



GHS Signal word: WARNING.

HAZARD STATEMENT:

H227: Combustible liquid.

AUH066: Repeated exposure may cause skin dryness or cracking.

H304: May be fatal if swallowed and enters airways.

H317: May cause an allergic skin reaction.

PREVENTION

P102: Keep out of reach of children.

P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

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

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

P272: Contaminated work clothing should not be allowed out of the workplace.

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

RESPONSE

P337: If eye irritation persists: seek medical attention.

P363: Wash contaminated clothing before reuse.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.

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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P333+P313: If skin irritation or rash occurs: Get medical advice.

P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

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 brown liquid.

Odour: Aromatic hydrocarbon odour.

Studies of acute effects of Triadimefon in rats have indicated a potential to induce neurobehavioral effects. Data regarding eye and skin irritation are inconclusive.

Possible skin sensitiser, if aspirated, may cause lung damage, repeated exposure may cause skin dryness or cracking.

Potential Health Effects

Inhalation:

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

Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short term exposure: Classified as a potential sensitiser by skin contact. Exposure to a skin sensitiser, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe. In addition product may be irritating, but is unlikely to cause anything more than mild transient discomfort.

Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short term exposure: This product may be irritating to eyes, but is unlikely to cause anything more than mild transient discomfort.

Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short term exposure: Significant oral exposure is considered to be unlikely. Because of the low viscosity of this product, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is very difficult to remove and can cause severe injury or death. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Long Term exposure: No data for health effects associated with long term ingestion.

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 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc,%	TWA (mg/m ³)	STEL (mg/m ³)
Triadimefon	43121-43-3	125g/L	not set	not set
Aromatic hydrocarbons	64742-94-5	795g/L	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 SWA 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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:

Issued by: Sipcam Pacific Australia Pty Ltd

Phone: (03)5223 3746

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

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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 MSDS 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: Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

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 C1 combustible 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. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: >95°C

Upper Flammability Limit: 7%

Lower Flammability Limit: 0.6%

Autoignition temperature: No data.

Flammability Class: Not flammable (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 eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. It should be fitted with a type G cartridge, suitable for agricultural chemicals.

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. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. 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 MSDS 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 MSDS 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: Note that this product is combustible and therefore, for Storage, meets the definition of Dangerous Goods in some states. If you store large quantities (tonnes) of such products, we suggest that you consult your state's Dangerous Goods authority in order to clarify your obligations regarding their storage.

Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

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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 Triadimefon is set at 0.03mg/kg/day. The corresponding NOEL is set at 2.5mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Values taken from Australian ADI List, June 2014.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: If you believe you may have a sensitisation to this product or any of its declared ingredients, you should 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.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Clear brown liquid.
Odour:	Aromatic hydrocarbon odour.
Boiling Point:	Approx 220°C at 100kPa
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	Negligible at normal ambient temperatures.
Vapour Density:	No data.
Specific Gravity:	1.02-1.03 at 20°C
Water Solubility:	Emulsifiable.
pH:	No data.
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: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: acids, strong bases, strong oxidising agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. 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 will not undergo polymerisation reactions.

Section 11 - Toxicological Information

There is no data to hand indicating any particular target organs.

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Triadimefon is Classed by SWA as a potential sensitiser by skin contact.

Toxicity: An information profile for Triadimefon is available at <http://extoxnet.orst.edu/pips/ghindex.html>

Acute toxicity: At 92.6%, Triadimefon has an acute oral LD₅₀ of 300 to 600 mg/kg in rats, about 1000 mg/kg in mice, and about 500 mg/kg in rabbits and dogs. Triadimefon has a potential to cause adverse chronic effects at low to moderate dose levels. Acute inhalation toxicity of the compound is moderate. The 4-hour inhalation LC₅₀ is greater than 0.48 mg/L in rats and approximately the same in mice. Acute toxicity through skin exposure is also fairly low. The LD₅₀ values for the dermal toxicity of technical Triadimefon are greater than 1000 mg/kg in rats and 2000 mg/kg in rabbits. Studies of acute effects in rats have indicated a potential to induce neurobehavioral effects. Data regarding eye and skin irritation are inconclusive.

Chronic toxicity: A number of 2-year studies have indicated that there are several toxic responses to low to moderate doses of the compound. Long-term studies of Triadimefon in several species (rat, mouse, dog) over a range of doses indicated a reduction in body weight, changes in red blood cell counts, an increase in blood cholesterol levels, and increased liver weights. Increased liver weights may be seen as an adaptation to toxic stress, rather than a toxic endpoint related to exposure.

Reproductive effects: Female rats fed up to 90 mg/kg/day of 92.6% Triadimefon over three generations showed a number of adverse effects. This and other evidence suggests it is unlikely that Triadimefon will cause reproductive toxicity in humans under normal circumstances.

Teratogenic effects: The teratogenic potential of Triadimefon is relatively low. Doses causing birth defects in rats were high enough to also produce maternal toxicity. Thus, it is unlikely that Triadimefon will cause birth defects in humans under normal circumstances.

Mutagenic effects: Six separate studies indicate that the 92.6% Triadimefon compound is nonmutagenic. Several other tests were inconclusive. It is unlikely that the compound poses a significant mutagenic risk.

Carcinogenic effects: In a 2-year dietary study with mice, the highest dose tested (600 mg/kg/day) did not produce significant increases in tumour incidence. Due to high mortality, the reliability of this data is suspect. Another 2-year dietary study in mice showed increased liver cell hypertrophy (which may be related to tumour formation) at doses of greater than 36 mg/kg/day in males and 6 mg/kg/day for females. Increased liver cell adenoma was detected at all levels, but carcinoma was not detected at any level in this study. Based on this evidence, no conclusion can be drawn about the overall carcinogenicity of Triadimefon.

Organ toxicity: Triadimefon has been associated with changes in the liver, decreased kidney weights, and altered urinary bladder structure in laboratory animals exposed to 18 to 60 mg/kg/day. There is evidence that acute effects on the central nervous system may also occur.

Fate in humans and animals: After oral administration of a single dose of Triadimefon, most of the compound was eliminated unchanged in the urine and faeces within 2 to 3 days. Some breakdown of a small amount of the compound occurred in the liver.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Triadimefon	>=1%Conc<25%: Xi; R43
Aromatic Hydrocarbons	Conc>=10%: Xn; R65

Section 12 - Ecological Information

This product is not readily biodegradable. However, likely to degrade slowly in the soil or water and not cause long term problems.

Effects on birds: Triadimefon ranges from slightly toxic to practically nontoxic to birds. For instance, the compound has an LD₅₀ > 4000 mg/kg in mallard ducks. Japanese quail are less tolerant of the compound (LD₅₀ of 2000 mg/kg) and canaries are even less tolerant (LD₅₀ >1000 mg/kg).

Effects on aquatic organisms: The compound is slightly toxic to fish, indicating that they are more susceptible to the presence of the compound than are birds.

Effects on other organisms: The compound is nontoxic to honeybees.

Environmental Fate:

Breakdown in soil and groundwater: Triadimefon has low to moderate persistence in soils. In a sandy loam type of soil, half of the initial amount of the compound was lost within 18 days. Triadimefon and its residues are moderately mobile and may have potential to leach to groundwater.

Breakdown in water: In water with a pH 3.0, 6.0, or 9.0, almost 95% of the compound remained after 28 weeks. The compound is very stable in water and does not readily undergo hydrolysis.

Breakdown in vegetation: In plants, a breakdown product is triadimenol, and translocation and metabolism may vary according to plant species. Triadimenol is of comparable toxicity to Triadimefon.

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

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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.

Section 14 - Transport Information

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Triadimefon, Aromatic hydrocarbons, are mentioned in the SUSMP.

Section 16 - Other Information

This MSDS 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

Contact Points:

AUSTRALIA

Police and Fire Brigade:	Dial	000
If ineffective:	Dial	1100 (Exchange)
For emergency response:	Dial	1800 033 111
National Poisons Information Centre:	Dial	13 1126 (from anywhere in Australia)

Please read all labels carefully before using product.

The Safety Data Sheet (SDS) augments the label and should not be used in place of regulatory approved product labels which are attached to or accompanying the product container. This SDS provides important health, safety and environmental information for personnel that are manufacturing, distributing, transporting and storing the product, including emergency responders and other product handlers. The label provides information specifically for product users.

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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