

Section 1 - Identification of The Material and Supplier

Ezycrop Pty Ltd
1402/1 Queens Rd
Melbourne VIC 3004 AUSTRALIA

Phone: (03) 9863 8168 (office hours)
Fax: 0458 572 081 (any time)

Chemical nature: Emulsifiable concentrate containing triadimefon
Trade Name: **Ezycrop Triadimefon 125 EC Fungicide**
APVMA Code: 68050
Product Use: Agricultural fungicide for use as described on the product label.
Creation Date: **September, 2018**
This version issued: **September, 2018** and is valid for 5 years from this date.
Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xi, Irritating. T, Toxic. N, Dangerous to the environment. Hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

SUSMP Classification: S6

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

UN Number: None allocated



GHS Signal word: DANGER

Acute Toxicity Oral Category 3

Skin Sensitisation Category 1

Eye irritation Category 2B

Reproductive Toxicity Category 1

Hazardous to aquatic environment Short term/Chronic Category 2

HAZARD STATEMENT:

H301: Toxic if swallowed.

H317: May cause an allergic skin reaction.

H320: Causes eye irritation.

H360: May damage fertility or the unborn child.

H411: Toxic to aquatic life with long lasting effects.

PREVENTION

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

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

P270: Do not eat, drink or smoke when using this product.

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

P273: Avoid release to the environment.

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

RESPONSE

P363: Wash contaminated clothing before reuse.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE 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.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: If exposed or concerned: Get medical advice.

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

P337+P313: If eye irritation persists: Get medical advice.

P391: Collect spillage.

SAFETY DATA SHEET

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

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: Liquid, no data regarding colour.

Odour: Solvent odour.

Major Health Hazards: Triadimefon is harmful if swallowed and if inhaled. Dermally it is harmful to non-harmful depending on species. Studies of acute effects in rats have indicated a potential to induce neurobehavioral effects. Data regarding eye and skin irritation are inconclusive.

Toxic if swallowed, may cause harm to unborn children, eye irritant, possible skin sensitiser.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc, g/L	TWA (mg/m ³)	STEL (mg/m ³)
Triadimefon	43121-43-3	125	not set	not set
N-Methyl-2-pyrrolidone	872-50-4	60	103	309
Aromatic hydrocarbons	64742-94-5	735	not set	not set
Other non hazardous ingredients	secret	to 1 L	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:

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

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre, or call a doctor at once. Give activated charcoal if instructed.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

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

Extinguishing Media: In case of fire, use carbon dioxide, dry chemical or foam.

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

Flash point: Combustible liquid not meeting the AS 1940 definition of a Flammable Liquid.

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Autoignition temperature: No data.

Flammability Class: No data.

SAFETY DATA SHEET

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 chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. No special recommendations for clothing materials. 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. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8).

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 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 schedule of poison. 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.

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/m ³)	STEL (mg/m ³)
N-Methyl-2-pyrrolidone	103	309

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. Data from Australian ADI List, March 2017.

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: 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: 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: 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, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Liquid, no data regarding colour.
Odour:	Solvent odour.
Boiling Point:	Not available.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.

SAFETY DATA SHEET

Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	Approx 1.063
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: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. 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

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

SAFETY DATA SHEET

N-methyl-2-pyrrolidone is a SWA Class 2 Reproductive risk, may cause harm to the unborn child.

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

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Triadimefon	$\geq 1\% \text{Conc} < 25\%$: Xi; R43
<ul style="list-style-type: none"> Acute toxicity – category 4 Skin sensitisation – category 1 Hazardous to the aquatic environment (chronic) – category 2 	
N-methyl-2-pyrrolidone	$\geq 5\% \text{Conc} < 10\%$: T; R61
<ul style="list-style-type: none"> Eye irritation – category 2A Skin irritation – category 2 Specific target organ toxicity (single exposure) – category 3 Reproductive toxicity – category 1B 	
Aromatic Hydrocarbons	$\text{Conc} \geq 10\%$: Xn; R65
<ul style="list-style-type: none"> Aspiration hazard – category 1 	

Potential Health Effects

Persons sensitised to triadimefon should avoid contact with this product.

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

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 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.

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. Available data shows that this product is toxic, but further symptoms are not available. 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 12 - Ecological Information

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Effects on birds: Triadimefon ranges from slightly toxic to practically nontoxic to birds. For instance, the compound has an $\text{LD}_{50} > 4000 \text{ mg/kg}$ in mallard ducks. Japanese quail are less tolerant of the compound (LD_{50} of 2000 mg/kg) and canaries are even less tolerant ($\text{LD}_{50} > 1000 \text{ mg/kg}$).

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:

SAFETY DATA SHEET

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 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

UN Number: This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. 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, N-Methyl-2-pyrrolidone, are mentioned in the SUSMP.

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)
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 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" (Feb 2016)

Copyright © Kilford & Kilford Pty Ltd, September, 2018.

<http://www.kilford.com.au/> Phone (02)8321 8866

SAFETY DATA SHEET