

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** **YATES TRIFORINE FUNGICIDE**

**Other name(s):** Formerly Yates Triforine Rose Fungicide

**Recommended Use:** Systemic fungicide to control blackspot, powdery mildew and rust.

**Supplier:** Yates Australia, a division of DuluxGroup (Australia) Pty Ltd

**ABN:** 67 000 049 427

**Street Address:** 1 Gow Street,  
Padstow, NSW 2211  
Australia

**Telephone Number:** +61 2 9781 8777

**Facsimile:** +61 2 9781 8825

**Emergency Telephone:** **1 800 033 111 (ALL HOURS)**

## 2. HAZARDS IDENTIFICATION

This material is hazardous according to criteria of Safe Work Australia; HAZARDOUS SUBSTANCE.

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

**Risk Phrases:** Highly Flammable. May cause harm to the unborn child.

**Poisons Schedule:** S5 Caution.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Risk Phrases
Ethyl alcohol	64-17-5	>60%	R11
N-methyl-2-pyrrolidone	872-50-4	1-<10%	R36/37/38 Repr.Cat.2 R61
Emulsifier	-	1-<10%	-
Dimethyl formamide	68-12-2	3.2%	R20/21, R36, Repr.Cat.2 R61
Triforine	26644-46-2	2.6%	-

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

### Skin Contact:

If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

**Product Name:** YATES TRIFORINE FUNGICIDE  
**Substance No:** 000000020499

**Issued:** 27/05/2010  
**Version:** 3

# Safety Data Sheet

**Eye Contact:**

If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:**

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.

**Medical attention and special treatment:**

Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Hazards from combustion products:**

Highly flammable liquid. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

**Precautions for fire fighters and special protective equipment:**

On burning will emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Prevent run off of fire water to avoid contaminating waterways.

**Suitable Extinguishing Media:**

Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

**Hazchem Code:** 2YE

## 6. ACCIDENTAL RELEASE MEASURES

**Emergency procedures:**

**SMALL SPILLS:** Wipe up with absorbent (clean rag or paper towels). Allow absorbent to dry before disposing with normal household garbage.

**Methods and materials for containment and clean up:**

**LARGE SPILLS:** Shut off all possible sources of ignition. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

## 7. HANDLING AND STORAGE

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

**Conditions for safe storage:**

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

**Precautions for safe handling:**

Keep out of reach of children. Avoid skin and eye contact and breathing in vapour.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Product Name:** YATES TRIFORINE FUNGICIDE  
**Substance No:** 000000020499

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**Version:** 3

# Safety Data Sheet



**Occupational Exposure Limits:** No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for constituent(s):

Dimethylformamide: 8hr TWA = 30 mg/m<sup>3</sup> (10 ppm), Sk

Ethyl alcohol: 8hr TWA = 1880 mg/m<sup>3</sup> (1000 ppm)

1-Methyl-2-pyrrolidone: 8hr TWA = 103 mg/m<sup>3</sup> (25 ppm), 15 min STEL = 309 mg/m<sup>3</sup> (75 ppm), Sk

As published by the National Occupational Health and Safety Commission.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

'Sk' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

## Engineering controls:

Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

## Personal Protective Equipment:

Avoid contact with eyes and skin. Do NOT inhale spray mist. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Brownish
<b>Odour:</b>	Alcohol
<b>Solubility:</b>	Emulsifiable with water. in water.
<b>Specific Gravity:</b>	0.83
<b>Relative Vapour Density (air=1):</b>	>1
<b>Vapour Pressure (20 °C):</b>	5.9 kPa (Ethanol)
<b>Flash Point (°C):</b>	13.5 (PMCC)
<b>Flammability Limits (%):</b>	3.3-19 (Ethanol)
<b>Autoignition Temperature (°C):</b>	Not available
<b>% Volatile by Weight:</b>	Not available
<b>Boiling Point/Range (°C):</b>	75.5
<b>Decomposition Point (°C):</b>	Not available
<b>Viscosity:</b>	Not available
<b>Evaporation Rate:</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Conditions to avoid:</b>	Avoid contact with foodstuffs. Avoid exposure to heat, sources of ignition, and open flame.
<b>Incompatible materials:</b>	Incompatible with oxidising agents.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen.
<b>Hazardous reactions:</b>	Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. Hazardous polymerisation will not occur.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs.
<b>Eye contact:</b>	May be an eye irritant.
<b>Skin contact:</b>	Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis. Component/s of this material can be absorbed through the skin with resultant toxic effects.
<b>Inhalation:</b>	Material may be irritant to the mucous membranes of the respiratory tract (airways). Breathing in vapour can result in headaches, dizziness, drowsiness, and possible nausea. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

### Long Term Effects:

For Dimethyl formamide (1): May cause harm to the unborn child. Available evidence from animal studies indicate that repeated or prolonged exposure to this material could result in effects on the liver.

**Toxicological Data:** No LD50 data available for the product. For the constituent(s) :

Oral LD50 (rat): 2200-7550 mg/kg (Dimethyl formamide);

>16000 mg/kg (Triforine);

3600 mg/kg (N-methyl pyrrolidone) (2)

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Avoid contaminating waterways. For TRIFORINE:

**Aquatic toxicity:** Low toxicity to aquatic organisms.

48hr LC50 (Daphnia magna): 117 mg/L (2)

**Product Name:** YATES TRIFORINE FUNGICIDE

**Substance No:** 000000020499

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**Version:** 3

# Safety Data Sheet



96hr LC50 (rainbow trout): >1000 mg/L (2)  
96hr LC50 (bluegill sunfish): >1000 mg/L (2)  
**Terrestrial toxicity:** Non-toxic to bees. Not toxic to birds.  
>5000 mg/kg (2)

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods:

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Advise flammable nature.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.



**UN No:** 1170  
**Class-primary:** 3 Flammable Liquid  
**Packing Group:** II  
**Proper Shipping Name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
**Hazchem Code:** 2YE

### Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

**UN No:** 1170  
**Class-primary:** 3 Flammable Liquid  
**Packing Group:** II  
**Proper Shipping Name:** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

**IMDG EMS Fire:** F-E

**IMDG EMS Spill:** S-D

### Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN No:** 1170  
**Class-primary:** 3 Flammable Liquid  
**Packing Group:** II  
**Proper Shipping Name:** ETHYL ALCOHOL SOLUTION

## 15. REGULATORY INFORMATION

**Classification:** This material is hazardous according to criteria of Safe Work Australia; HAZARDOUS SUBSTANCE.

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**Hazard Category:** T : Toxic

**Risk Phrase(s):** R11: Highly Flammable.  
Repr. Cat. 2. R61: May cause harm to the unborn child.

**Safety Phrase(s):** S2: Keep out of the reach of children.  
S16: Keep away from sources of ignition - No smoking.  
S23: Do not breathe vapour/mist/aerosol.  
S24/25: Avoid contact with skin and eyes.  
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

**Poisons Schedule:** S5 Caution.

This product is registered in Australia by the Australian Pesticides & Veterinary Medicines Authority (APVMA).

## 16. OTHER INFORMATION

- (1) Material Safety Data Sheet - Australia Pty Ltd; 04/ 2003.
- (2) Supplier Material Safety Data Sheet; 11/ 2004.

**Reason(s) for Issue:**  
Product name change

This safety data sheet has been prepared by SH&E Shared Services.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since DuluxGroup Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their DuluxGroup representative or DuluxGroup Limited at the contact details on page 1.

DuluxGroup Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.