

Safety Data Sheet



Hazardous Substance, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Yates Triforine Fungicide**

Synonyms:

Yates Triforine Rose Fungicide

Product Code

-

Bar Code

-

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

Supplier:

Yates, a division of
DuluxGroup (Australia) Pty Ltd

ABN:

67 000 049 427

Street Address:

1956 Dandenong Road
Clayton VIC 3168
Australia

Telephone:

1300 369 074

Emergency telephone number: Australia – 1800 033 111

New Zealand – 0800 734 607

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word

Danger

Hazard Classification

Flammable Liquids – Category 2

Toxic to Reproduction – Category 1B

Hazard Statement(s)

H225 Highly flammable liquid and vapour

H360 May damage fertility or the unborn child

Prevention Precautionary Statement(s)

P102 Keep out of reach of children

P103 Read label before use

P201 Obtain special instructions before use

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

P210 Keep away from all sources of ignition - No smoking

P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical, ventilating, lighting and all other equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge

P280 Wear protective clothing, gloves, eye/face protection and suitable respirator as required

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Response Precautionary Statement(s)

P101 If medical advice is needed, have product container or label at hand
P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P308+313 IF exposed or concerned: Get medical advice/attention
P370+378 In case of fire: Use alcohol resistant foam for extinction

Storage Precautionary Statement(s)

P405 Store locked up
P403+235 Store in a well ventilated place. Keep cool

Disposal Precautionary Statement(s)

P501 Dispose of contents/container in accordance with local, regional, national and international regulations

Poisons Schedule (Aust): S5

DANGEROUS GOODS CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Class: 3 Flammable Liquid

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Ethanol	64-17-5	> 60%
N-Methyl-2-Pyrrolidone	872-50-4	25 g/L
Dimethyl formamide	68-12-2	25 g/L
Triforine	26644-46-2	20 g/L
Ingredients determined to be non-hazardous	-	Balance
		100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from 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. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Skin contact: For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

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.

Product name: Yates Triforine Fungicide

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Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

PPE for First Aiders: Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Hazchem Code: •2YE

Suitable extinguishing media: Alcohol resistant foam is the preferred fire-fighting medium. If material is involved in a fire use alcohol resistant foam, water fog (or if unavailable fine water spray), foam or dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Flammable liquid. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. 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.

Fire fighting further advice: Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may emit toxic fumes, including oxides of carbon and nitrogen. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Wipe up with absorbent (clean rag or paper towels). Allow absorbent to dry before disposing with normal household garbage.

LARGE SPILLS

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Prevent further leakage or spillage if safe to do so. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. 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. Use a spark-free shovel. If contamination of sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 14

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7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

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

This material is classified as a Dangerous Good Class 3 Flammable Liquid as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations.

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

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m3	ppm	mg/m3		
Ethanol	1,000	1,880	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

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

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too 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.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Personal protection equipment: OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

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MANUFACTURING, PACKAGING AND TRANSPORT

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

RECOMMENDATIONS FOR CONSUMER USE:

Wear gloves. Wash hands after use.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid skin and eye contact and inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Clear, brown liquid with an alcohol odour.

Solubility:	Emulsifiable in water.
Specific Gravity (20 °C):	0.83
Relative Vapour Density (air=1):	>1
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	13.5 (Ethanol)
Flammability Limits (%):	LEL – 3.3; UEL – 19 (Ethanol)
Autoignition Temperature (°C):	N Av
% Volatile by Volume:	N Av
Melting Point/Range (°C):	N Av
Boiling Point/Range (°C):	75.5
Decomposition Point (°C):	N Av
pH:	N Av
Viscosity:	N Av
Total VOC (g/Litre):	N Av

(Typical values only - consult specification sheet)

N Av = Not available

N App = Not applicable

10. STABILITY AND REACTIVITY

Reactivity: No reactivity hazards are known for the material.

Chemical stability: This material is thermally stable when stored and used as directed.

Hazardous reactions: No known hazardous reactions.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

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:

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

Skin contact: 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.

Ingestion: Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent complications. Aspiration pneumonia (inflammation of the lung) may result.

Eye contact: May be an eye irritant.

Acute toxicity

Inhalation: This material has been classified as non-hazardous.

*For the active constituent;
TRIFORINE
Inhalation LC₅₀ (rat): >4.5mg/L/1hr.*

Skin contact: This material has been classified as non-hazardous.

*For the active constituent;
TRIFORINE
Dermal LD₅₀ (rat): >10,000 mg/kg.*

Ingestion: This material has been classified as non-hazardous.

*For the active constituent;
TRIFORINE
Oral LD₅₀ (rat): >16,000 mg/kg.
Oral LD₅₀ (dog): >2,000 mg/kg.*

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

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Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as a Category 1B Hazard. Toxic to reproduction.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: No information is available to complete an assessment.

For the active constituent;

TRIFORINE

96hr LC50 (rainbow trout): >1,000 mg/L

96hr LC50 (bluegill sunfish): >1,000 mg/L

Long-term aquatic hazard: No information is available to complete an assessment.

Ecotoxicity: Product is not classified as hazardous to terrestrial species.

For the active constituent;

TRIFORINE

Oral LD₅₀ (bobwhite quail): >5,000 mg/kg.

Persistence and degradability: Triforine is not considered persistent in soil. The half in soil is approximately 3 weeks.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

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14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

UN No: 1170
Dangerous Goods Class: 3 Flammable Liquid
Packing Group: II
Hazchem Code: •2YE
Emergency Response Guide No: 14

Proper Shipping Name: ETHANOL SOLUTION

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2) or radioactive substances (Class 7), however exemptions may apply.

MARINE TRANSPORT

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

UN No: 1170
Dangerous Goods Class: 3 Flammable Liquid
Packing Group: II

Proper Shipping Name: ETHANOL SOLUTION

AIR TRANSPORT

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

UN No: 1170
Dangerous Goods Class: 3 Flammable Liquid
Packing Group: II

Proper Shipping Name: ETHANOL SOLUTION

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)

This material is subject to the following international agreements:

Basel Convention (Hazardous Waste)

- Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish

International Convention for the Prevention of Pollution from Ships (MARPOL)

- Annex III - Harmful Substances carried in Packaged Form

This material/constituent(s) is covered by the following requirements:

- The Standard for the *Uniform Scheduling of Medicines and Poisons (SUSMP)* established under the *Therapeutic Goods Act (Commonwealth)*.
- All the constituents of this material are listed on the *Australian Inventory of Chemical Substances (AICS)*.

16. OTHER INFORMATION

Literary reference

This Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd (chemdata.com.au) on behalf of its client.

Reason(s) For Issue: 5 Yearly Revision
Minor Text Changes.
Format Change

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since DuluxGroup (Australia) Pty Ltd and DuluxGroup (New Zealand) Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

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

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