



## COLIN CAMPBELL (CHEMICALS) PTY. LTD.

### MATERIAL SAFETY DATA SHEET

Date of Issue: 1 January 2008

#### 1) IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** CAMPBELL TRIDIM 250EC FUNGICIDE  
**Other Names:** None  
**Chemical Group:** Triazole  
**Recommended Use:** Fungicide for use on agricultural crops.  
**Supplier Details:** Colin Campbell (Chemicals) Pty Ltd ABN 29 000 045 590  
5 Blackfriar Place  
Wetherill Park NSW 2164  
**Telephone:** (02) 9725 2544  
**Fax:** (02) 9604 7768  
**Email:** [cccsyd@campbellchemicals.com.au](mailto:cccsyd@campbellchemicals.com.au)  
**Website:** [www.campbellchemicals.com.au](http://www.campbellchemicals.com.au)  
**Contact:** Product Development Manager – (02) 9725 2544  
**Emergency Telephone Number:** (02) 9725 2544 – 8am to 6pm Monday to Friday.

#### 2) HAZARDS IDENTIFICATION

##### HAZARDOUS SUBSTANCE - NON DANGEROUS GOOD

**Hazardous classification:** Hazardous according to the criteria of the National Occupational Health & Safety Commission (NOHSC)

**Risk phrases:** R22 – Harmful if swallowd  
R36/38 – Irritating to eyes and skin.

**Safety phrases:** See sections 4,5,6,7,8,10,12,13

**ADG Classification** Not a Dangerous good for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

**SUSDP classification:** 6 (Standard for the Uniform Scheduling of Drugs & Poisons)

#### 3) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Triadimenol	55219-65-3	25%
N-methylpyrrolidone	872-50-4	10-<30%
Other ingredients including wetting agents and water	Non hazardous	30-60%

#### 4) FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poison Information Centre (Ph: 13 11 26) and follow the advice given. Show this Material Safety Data Sheet to the doctor.

**Inhalation:** If inhaled remove to fresh air and keep at rest.

**Skin Contact:** Carefully remove contaminated clothing. Wash affected areas with soap and water.



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Date of Issue: 1 January 2008

#### 4) FIRST AID MEASURES continued

<b>Eye contact:</b>	Rinse eyes immediately with clean water for at least 15 minutes and seek medical aid.
<b>Ingestion:</b>	Wash mouth out with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice.
<b>First Aid facilities</b>	Ensure eye wash and safety shower are available.
<b>Medical Attention:</b>	Triadimenol is a triazole compound. Symptoms of poisoning have not been recorded. Therapeutic measures - basic aid, decontamination, symptomatic treatment. Ingestion of N-methyl-2-pyrrolidone causes gastric disturbances such as nausea and vomiting. Treat symptoms.

#### 5) FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Water spray, foam, dry chemical, carbon dioxide (CO <sub>2</sub> ), sand.
<b>Hazard from combustion products</b>	Explosion hazard is low. Can react with oxidising materials. In a fire, formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides can be expected.
<b>Precautions for fighting fires</b>	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Do not release contaminated water into the environment.
<b>Hazchem Code</b>	Not applicable.

#### 6) ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Contain spill and absorb with earth, sand, clay or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc is unavoidable warn the local water authority.

#### 7) HANDLING AND STORAGE

<b>Handling</b>	Keep out of reach of children. Will irritate eyes and skin. 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. After each day's use wash gloves and contaminated clothing. Keep away from ignition sources.
<b>Storage</b>	Store in the closed original container in a cool well ventilated area. Do not store for prolonged periods in direct sunlight.
<b>Flammability</b>	Combustible liquid Class C1 – flash point between 61 and 150°C.



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Date of Issue: 1 January 2008

#### 8) EXPOSURE CONTROL/PERSONAL PROTECTION

<b>Exposure Standards</b>	No exposure standards have been assigned. The manufacturer of N-methyl-2-pyrrolidone recommends a TWA of 20ppm (80 g/m <sup>3</sup> ). Skin notation.  Exposure standard – Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week Skin notation – absorption through the skin may be a significant source of exposure.
<b>Biological Limit Values</b>	None allocated
<b>Engineering Controls</b>	Control process conditions to avoid contact. Use in a well ventilated area only.
<b>Personal Protective Equipment</b>	Eyes: Safety goggles if exposure is possible Clothing: Cotton overalls buttoned to the neck and wrist and a washable hat. Gloves: Elbow length butyl rubber or neoprene gloves Respiratory: If inhalation is likely an AS/NZS 1715/1716 approved respirator should be worn.

#### 9) PHYSICAL AND CHEMICALS PROPERTIES

<b>Appearance:</b>	Light brown translucent liquid
<b>Odour:</b>	Aromatic
<b>Vapour pressure:</b>	1 hPa at 20°C
<b>Vapour density:</b>	3.4 (N-methyl-2-pyrrolidone)
<b>Boiling point:</b>	Not available
<b>Freezing/Melting point:</b>	Not available
<b>Solubility:</b>	Emulsifies with water
<b>Specific gravity:</b>	1.075 at 20°C
<b>Flash point:</b>	93°C
<b>Flammability (explosive) limit:</b>	Lower: 1.3 vol. % ; upper 9.5 vol. % (N-methyl-2-pyrrolidone)
<b>Auto ignition temperature:</b>	245°C (N-methyl-2-pyrrolidone)
<b>Partition coefficient (octanol/water):</b>	<i>Triadimenol</i> : Log P <sub>ow</sub> = 3.08 – 3.28 at 25°C <i>N-methyl-2-pyrrolidone</i> : Log P <sub>ow</sub> = –0.46

#### 10) STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use. Will not polymerise.
<b>Conditions to avoid:</b>	Excessive heat
<b>Incompatible materials :</b>	Oxidising agents.



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### MATERIAL SAFETY DATA SHEET

Date of Issue: 1 January 2008

#### 10) STABILITY AND REACTIVITY continued

**Hazardous decomposition products:** In a fire, formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides can be expected.

**Hazardous reactions:** Exothermic reaction with strong acids or strong alkalis.

#### 11) TOXICOLOGICAL INFORMATION

**Inhalation:** Harmful if inhaled. May produce respiratory irritation.

**Skin contact:** Will irritate the skin. Redness and dermatitis from prolonged contact. Can be absorbed through the skin.

**Eye contact:** Will irritate the eyes. May cause temporary corneal clouding.

**Ingestion:** Harmful if swallowed

##### ANIMAL TOXICITY DATA - PRODUCT

**Acute:**

**Oral toxicity** LD<sub>50</sub> rat (male) 3700mg/kg  
LD<sub>50</sub> rat (female) 1720mg/kg

**Dermal toxicity:** LD<sub>50</sub> rat >5000mg/kg

**Inhalation toxicity:** LC<sub>50</sub> rat (4 hour): >0.412mg/L, aerosol (highest attainable concentration)

**Skin irritation:** Not irritating (rabbit)

**Irritation of mucous membranes:** Slightly irritating (rabbit)

**Sensitisation:** N-methyl-2-pyrrolidone is not a skin sensitiser in animal studies.

**Chronic:**

Animal studies have shown that triadimenol is not oncogenic or carcinogenic nor teratogenic, is not mutagenic. No known chronic toxicity effects are associated with N-methyl-2-pyrrolidone if exposure limit is observed.

#### 12) ECOLOGICAL INFORMATION

Harmful to aquatic organisms and may cause adverse effects in the aquatic environment. It is non-toxic to honey bees. DO NOT contaminate streams, rivers or waterway with Tridim or the used containers.

**Ecotoxicity:** **Triadimenol:**  
Fish toxicity: LC<sub>50</sub> (96 h) bluegill sunfish (*Lepomis macrochirus*) 15mg/L  
LC<sub>50</sub> (96 h) in trout (*Onchorhynchus mykiss*) 21.3mg/L  
Daphnia toxicity: EC<sub>50</sub> (48 h) water flea (*Daphnia magna*) 51mg/L  
Algal Toxicity:  
Growth rate: EC<sub>50</sub> (72 h) green algae (*Pseudokirchneriella subcapitata*) 38mg/L



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Date of Issue: 1 January 2008

#### 12) ECOLOGICAL INFORMATION *continued*

**Ecotoxicity  
(continued):**

**Triadimenol:**

Bird toxicity:

Acute oral LD<sub>50</sub> bobwhite quail >2000mg/kg

Bacteria toxicity:

EC<sub>50</sub> activated sludge micro-organism >10,000mg/L

**Environmental fate,  
persistence and  
degradability,  
mobility**

Triadimenol is inherently biodegradable ~70% in 28 days. DT50 in sandy loam is 110-375 days; in loam 240-270 days.

Bioconcentration factor (BCF): 21

#### 13) DISPOSAL CONSIDERATIONS

Triple or preferable pressure rinse containers before disposal. Add rinsings to the mixing tank. Do not dispose of undiluted chemical on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

#### 14) TRANSPORT INFORMATION

<b>UN Number:</b>	Not applicable
<b>Proper Shipping name:</b>	Not applicable
<b>Class and subsidiary risk:</b>	Not applicable
<b>Packing Group:</b>	Not applicable
<b>EPG:</b>	Not applicable
<b>Hazchem code:</b>	Not applicable
<b>Marine Pollutants:</b>	No

#### 15) REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Act 1988 (Commonwealth) Australian Pesticides and Veterinary Medicines Authority approval number: 51580

#### 16) OTHER INFORMATION

This MSDS 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 should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

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

**END OF MSDS**