



## 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 FLOWABLE TMTD FUNGICIDE  
**Other Names:** None  
**Chemical Group:** Dithiocarbamate  
**Recommended Use:** Fungicide for use on turf.  
**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:** R20/22 – harmful by inhalation and if swallowed.  
R36/37 – Irritating to eyes and respiratory system.  
R40 – Possible risks of irreversible effects  
R43 - May cause sensitisation by skin contact.

**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
Thiram	137-26-8	60%
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. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

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



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#### 4) FIRST AID MEASURES continued

<b>Eye contact:</b>	Check and remove any contact lenses. Rinse eyes immediately with clean water for at least 15 minutes and seek medical aid.
<b>Ingestion:</b>	Give a glass of water and wash mouth out with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice. Loosen tight clothing.
<b>First Aid facilities</b>	Ensure eye wash and safety shower are available.
<b>Medical Attention:</b>	Treat symptoms. Avoid giving alcohol - may cause vomiting and shock.

#### 5) FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Water fog, foam, dry chemical, carbon dioxide (CO <sub>2</sub> )
<b>Hazard from combustion products</b>	In a fire, formation of toxic compounds of carbon, nitrogen and sulphur can be expected. Combustible liquid at high temperatures.
<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>	2X

#### 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.
<b>Storage</b>	Store in the closed original container in a cool well ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room away from children, animals, food, animal feed, seed and fertilisers. Protect from frost.
<b>Flammability</b>	Combustible liquid at high temperatures.



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#### 8) EXPOSURE CONTROL/PERSONAL PROTECTION

<b>Exposure Standards</b>	No Worksafe Australia exposure standards have been assigned. OSHA (USA): Thiram PEL 5mg/m <sup>3</sup> 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 or face shield if exposure is possible Clothing: Chemical resistant disposable overalls and PVC boots.. Gloves: Chemical resistant PVC or nitrile gloves Respiratory: If inhalation is likely an AS/NZS 1715/1716 approved respirator should be worn.

#### 9) PHYSICAL AND CHEMICALS PROPERTIES

<b>Appearance, Odour and Colour:</b>	White to yellow liquid acrid odour
<b>Specific Gravity:</b>	1.18-1.19
<b>Melting Point:</b>	Not applicable
<b>Solubility (water):</b>	Suspension
<b>Flash Point:</b>	No data
<b>Boiling Point:</b>	No data
<b>Vapour Pressure:</b>	As for water vapour
<b>Vapour Density:</b>	No data
<b>Percent Volatiles:</b>	44%
<b>Flammability Limits:</b>	<b>UFL:</b> Not determined <b>LFL:</b> Not determined
<b>Autoignition Temperature:</b>	Not determined
<b>Partition co-efficient, n-octanol/water</b>	Thiram : log pKow = 1.73

#### 10) STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Conditions to avoid:</b>	The addition of a strong acid will cause release of carbon disulfide vapour. carbon disulphide is a volatile liquid, toxic.
<b>Incompatible materials :</b>	Oxidising agents, acids, alkalis.



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#### 10) STABILITY AND REACTIVITY continued

**Hazardous decomposition products:** In a fire, formation of toxic compounds of carbon, nitrogen and sulphur can be expected.

**Hazardous reactions:** Keep away from strong oxidising agents. Hazardous polymerisation is not possible.

#### 11) TOXICOLOGICAL INFORMATION

**Inhalation:** May irritate mucous membranes of nose and mouth.

**Skin contact:** Prolonged contact with the concentrate may cause irritation.

**Eye contact:** Will irritate the eyes.

**Ingestion:** Possible symptoms of exposure include headache, arrhythmia, shortness of breath and nausea. Consumption of alcohol increases toxic effects.

##### ANIMAL TOXICITY DATA – THIRAM

**Acute:**

**Oral toxicity** LD<sub>50</sub> rat 2600mg/kg (thiram)  
LD<sub>50</sub> mice 1500-2000mg/kg (thiram)  
LD<sub>50</sub> rabbit >2000mg/kg (thiram)

**Dermal toxicity:** LD<sub>50</sub> rat >2000mg/kg (thiram)

**Inhalation toxicity:** LC<sub>50</sub> rat (4 hour): 4.42mg/L (thiram)

**Skin irritation:** Skin irritant

**Irritation of mucous membranes:** Irritating

**Sensitisation:** Sensitising with prolonged and repeated skin contact.

**Chronic:**

Repeated or prolonged exposure is not known to cause additional significant adverse effects.

#### 12) ECOLOGICAL INFORMATION

Toxic to aquatic organisms and may cause adverse effects in the aquatic environment.  
DO NOT contaminate streams, rivers or waterway with Flowable TMTD or the used containers.

**Ecotoxicity:** **Thiram:**  
Fish toxicity: LC<sub>50</sub> (96 h) bluegill sunfish (*Lepomis macrochirus*) 0.045mg/L  
LC<sub>50</sub> (96 h) in trout (*Onchorhynchus mykiss*) 0.128mg/L  
Daphnia toxicity: EC<sub>50</sub> (48 h) water flea (*Daphnia magna*) 0.21mg/L



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#### 12) ECOLOGICAL INFORMATION *continued*

<b>Ecotoxicity (continued):</b>	Not toxic to bees.
<b>Environmental fate, persistence and degradability, mobility</b>	Thiram is rapidly degraded in the soil. Average field half life of thiram is <1 day.

#### 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

#### 15) REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Act 1988 (Commonwealth) Australian Pesticides and Veterinary Medicines Authority approval number: 30616

#### 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**