

# SAFETY DATA SHEET

## THIRAFLO® FLOWABLE FUNGICIDE (BLUE)



Version 1.8      Revision Date: 11.11.2015      MSDS Number: 000000009120      Country: AU  
Language: EN

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### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : THIRAFLO® FLOWABLE FUNGICIDE (BLUE)

Product code : 000000009120

#### Manufacturer or supplier's details

Company: Arysta LifeScience Australia Pty Ltd  
c/o Level 7, 435 King William Street  
Adelaide SA  
Australia  
5000  
Telephone : + 61 8 8112 0900

Prepared by sds.request@arysta.com

Further information for the safety data sheet :  
sds.request@arysta.com

#### 1.4 Emergency telephone number

Emergency telephone number: +61 2801 44558, ORICA : 1800 033 111 (24 hr Service)  
For additional emergency telephone numbers see section 16 of the  
Safety Data Sheet.

#### Recommended use of the chemical and restrictions on use

Recommended use : Fungicide

Restrictions on use : Agriculture  
For professional users only.  
APVMA No: 58072

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### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2A

Skin sensitisation : Category 1

Specific target organ toxicity - : Category 2

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repeated exposure

### GHS Label element

Hazard pictograms



Signal word

: Warning

Hazard statements

: H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

: **Prevention:**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear eye protection/ face protection.  
P280 Wear protective gloves.  
**Response:**  
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.  
P314 Get medical advice/ attention if you feel unwell.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

Hazardous substance

Dangerous goods

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Thiram - 600 g/L

### Hazardous components

Chemical Name	CAS-No.	Concentration (% w/w)
thiram	137-26-8	>= 30 - < 60

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propane-1,2-diol	57-55-6	< 10
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### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
For advice, contact a Poisons Information Centre (Phone: Australia 131 126 or New Zealand 0800 764 766) or a doctor at once.
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : irritant effects  
sensitising effects  
Symptoms may be delayed.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause damage to organs through prolonged or repeated exposure.
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must

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be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.
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### SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
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### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
thiram	137-26-8	TWA	1 mg/m <sup>3</sup>	AU OEL
Further information: Sensitiser				
		TWA (Inhalable fraction and vapor)	0.05 mg/m <sup>3</sup>	ACGIH
propane-1,2-diol	57-55-6	TWA (particulate)	10 mg/m <sup>3</sup>	AU OEL
		TWA (Total (vapour and particles))	150 ppm 474 mg/m <sup>3</sup>	AU OEL

#### Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

#### Hand protection

Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves Before removing gloves clean them with soap and water.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : suspension

Colour : blue

Odour : slight, characteristic

pH : 5.5 - 8.5

: No data available

Boiling point/boiling range : Not applicable

Flash point : 94 °C

Evaporation rate : No data available

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Upper explosion limit : No data available  
Lower explosion limit : No data available  
Vapour pressure : No data available  
Relative vapour density : No data available  
Relative density : 1.180 - 1.200  
Solubility(ies)  
Solubility in other solvents : No data available  
Solvent: Organic solvents  
Partition coefficient: n-octanol/water : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity  
Viscosity, dynamic : No data available  
Viscosity, kinematic : No data available

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### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions.  
Chemical stability : No decomposition if stored and applied as directed.  
Possibility of hazardous reactions : No decomposition if used as directed.  
Conditions to avoid : No data available  
Hazardous decomposition products : Burning produces noxious and toxic fumes.

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### **Product:**

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method  
Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

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### **Components:**

#### **thiram:**

Acute oral toxicity : LD50 (Rat, female): 1,800 mg/kg

Acute inhalation toxicity : LC50 (Rat, female): 3.46 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

#### **propane-1,2-diol:**

Acute oral toxicity : LD50 (Rat): 20,000 mg/kg

LD50 (Rabbit): 18,500 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 20,800 mg/kg

### **Skin corrosion/irritation**

#### **Product:**

Remarks: May cause skin irritation in susceptible persons.

### **Components:**

#### **thiram:**

Species: Rabbit

Result: No skin irritation

### **Serious eye damage/eye irritation**

#### **Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

### **Components:**

#### **thiram:**

Species: Rabbit

Result: Irritating to eyes.

Assessment: Irritating to eyes.

### **Respiratory or skin sensitisation**

#### **Product:**

Remarks: Causes sensitisation.

### **Components:**

#### **thiram:**

Species: Guinea pig

Assessment: May cause sensitisation by skin contact.

Result: Causes sensitisation.





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10 mg/kg bw/day  
Teratogenicity: No observed adverse effect level: 10 mg/kg bw/day

Species: Rat  
Teratogenicity: No observed adverse effect level: 7.5 mg/kg bw/day

Reproductive toxicity - Assessment : negative  
negative

### Repeated dose toxicity

#### Components:

##### **thiram:**

Species: Rat  
NOAEL: 2.5 mg/kg  
Application Route: Oral  
Exposure time: 90 d  
Target Organs: Stomach

Species: Rabbit  
NOAEL: 300 mg/kg  
Application Route: Dermal  
Exposure time: 21 d

Species: Dog  
NOAEL: 2 mg/kg  
Application Route: Oral  
Exposure time: 90 d  
Target Organs: Liver

### Further information

#### Product:

Remarks: No data available

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **thiram:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.046 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.011 mg/l  
Exposure time: 48 h  
Test Type: static test

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Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.065 mg/l  
Exposure time: 120 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : (Daphnia magna (Water flea)): 0.008 mg/l  
Exposure time: 21 d

### Persistence and degradability

#### Components:

##### **thiram:**

Biodegradability : Result: Not readily biodegradable.

### Bioaccumulative potential

#### Components:

##### **thiram:**

Partition coefficient: n-octanol/water : log Pow: 2.1

### Mobility in soil

No data available

### Other adverse effects

#### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Components:

##### **thiram:**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.

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Do not re-use empty containers.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulation

##### UNRTDG

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (thiram)  
Class : 9  
Packing group : III  
Labels : 9

##### IATA-DGR

UN/ID No. : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., Environmentally hazardous substance, liquid, n.o.s. (thiram)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964

##### IMDG-Code

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (thiram)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### ADG

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (thiram)  
Class : 9  
Packing group : III  
Labels : 9

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Hazchem Code :  
Remarks : SP No. AU01 Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;  
(a) packagings that do not incorporate a receptacle exceeding 500 kg(L); or  
(b) IBCs.

### SECTION 15. REGULATORY INFORMATION

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

Standard for the Uniform Scheduling of Medicines and Poisons : Schedule 6

Prohibition/Licensing Requirements : There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

### SECTION 16. OTHER INFORMATION

#### Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; OECD - Organization for Economic Cooperation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TDG - Transportation of Dangerous Goods; UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System; DSL - Domestic Substances List (Canada); KECl - Korea Existing Chemicals Inventory; TSCA - Toxic

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Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Date format : dd.mm.yyyy

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

AU / EN

### Carechem24 International Worldwide Coverage

#### Emergency Phone Number

<u>Europe:</u>	All European Countries	+44 (0) 1235 239 670 (NCEC)
<u>Asia Pacific:</u>	East / South East Asia – Regional Number	+65 3158 1074
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China	+86 532 8388 9090
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	Malaysia	+60 3 6207 4347
	Thailand	001800 1 2066 6751
	Korea	+65 3158 1285 +82 (0)234 798 401
	Vietnam	+65 3158 1255
	India	+65 3158 1198 0800 100 7479
	Pakistan	+65 3158 1329
	Philippines	+65 31581203
	Sri Lanka	+65 3158 1195
	Emergency Phone Number	+65 3158 1200
<u>Middle East / Africa:</u>	Arabic speaking countries	+44 (0) 1235 239 671
	South Africa	+27 21 300 2732
	All other countries	+44 (0) 1235 239 670

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<u>America</u>	United States of America and Canada	+1866 928 0789 +1 215 207 0061
<u>Latin America:</u>	Brazil	+55 11 3197 5891
	Mexico	+52 555 004 8763
	Chile	+56 225 829 336
	All other countries	+44 (0) 1235 239 670